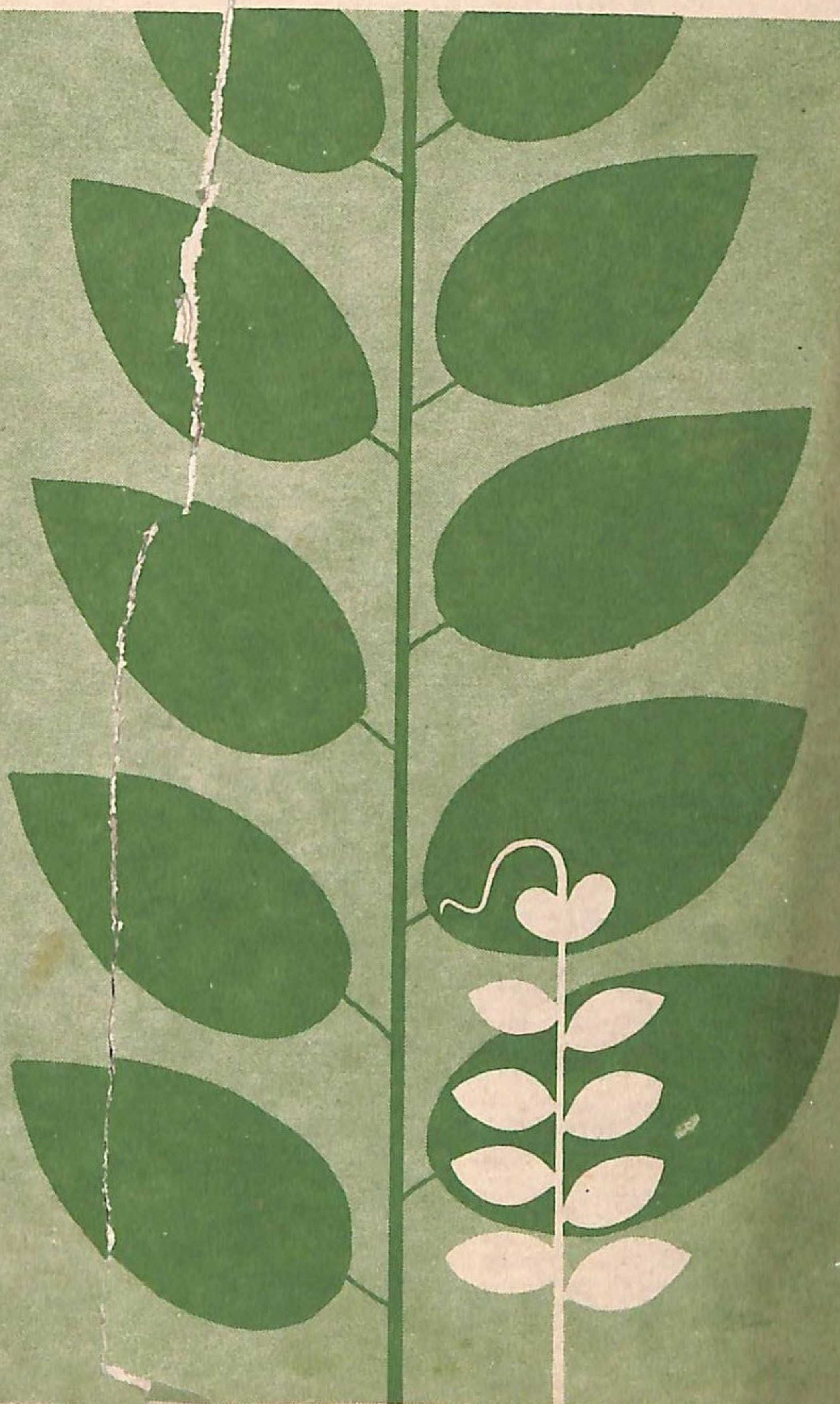


THE WORLD AROUND US

ENVIRONMENTAL SCIENCE FOR PRIMARY SCHOOLS

2



ORIENT LONGMAN

SOME BASIC TEACHING ASSUMPTIONS FOR THE SERIES

- 1 Knowledge is meaningful only when facts are made real to a child through experience. He thus learns not through passive listening and note-taking but through talking, perceiving and participating in activities related to the experience.
- 2 Basic intellectual and scientific skills must be developed – observation, reasoning, judgement, anticipation and curiosity.
- 3 The child must not be prejudiced but guided. Therefore, except on essential issues, judgements on facts and situations are not imposed.
- 4 The environment is too vital to be ignored. The emphasis should be on conserving the natural world and on developing attitudes of involvement and concern.
- 5 Children must express themselves – in words, in writing, in activity – and they must be given opportunities to do so.
- 6 There are usually a number of possible answers to a question, including the honest 'I don't know'. Children must be directed to the most satisfactory answer by hints and pointers, not a dismissing 'right' and 'wrong'.

THE WORLD AROUND US

BOOK 2

M. Vincent Simon
St Gabriel's Higher Secondary School, Madras

Julia Francis
St Kevin's High School, Madras



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TO THE TEACHER

The World Around Us is a set of six books of environmental science for primary schools. The environment physically presented is Indian, with features familiar to every Indian child.

The material is based on the topics listed and the emphases recommended in the recently revised syllabus of the National Council of Educational Research and Training (NCERT). Due attention has however been given to absorbing the recommendations in other primary-level syllabuses as well.

The series represents an effort to promote certain elements of thinking which are today recognised as crucial in teaching the environmental sciences. The environment is a dynamic, living, *changing* phenomenon. As human beings capable of thinking, doing and inventing, we exert the greatest influence on it. Man-made complexities and problems in modern living make it necessary for us to develop positive attitudes of concern for the environment and the desire to conserve its natural endowment and resources.

The material is organised, as it is in the NCERT syllabus under concept-heads with reference to the home and the family, the neighbourhood, the school and the outer world of space. A number of subjects are covered. The texts are profusely illustrated. Lessons have been planned and presented with a view to stimulating the child's interest and curiosity.

A special feature is the help offered to the teacher. In the Introductory Book and Books 1 and 2, this is in the form of detailed notes for each lesson. In the later books, teaching guidelines are built into the text and are self-evident. The teacher is of course free not to use the notes and to evolve his or her own methods of teaching. The teacher is also advised to repeatedly supplement the material in these books with activities that draw the child's attention to the local environment and its peculiarities.

The teacher's attention is drawn to the fact that in the first three books, topics and sub-topics have not been clustered together except at the beginning and in a few essential instances. This has been done to help avoid monotony and topic-grinding. The teacher is however free to follow a topic order in teaching if this is found preferable. In the books, the material is graded in order of comprehension difficulty and topics dovetail in a logical sequence.

In writing the books, every attempt has been made to appreciate the possibilities and limitations of the classroom situation. The authors, who are practising teachers themselves, are grateful to the many teachers consulted in the preparation of the books from whom they received comments, encouragement and advice. They are likewise grateful to the artists whose illustrations have brought these ideas alive.

M. VINCENT SIMON
JULIA FRANCIS

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(For topic indications, please see Lesson Notes for Teachers)

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This is Velu.
He sells vegetables.



This is Nandan.
He works in an office.



Velu's wife works at home.
In the afternoons she
cleans rice for the grocer.



Nandan's wife works at
home. She is busy all day.



Velu's children go to
school.



Nandan's children
go to school.

Velu's family helps him.



And Velu helps his family.



How do they help each other?

Nandan's family helps him.



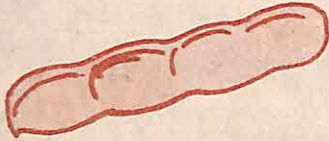
Nandan helps his family.



How do they help each other?

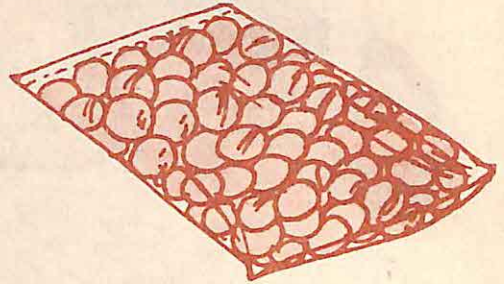
SWEET AND SOUR

Sugar is sweet.



Tamarind is sour.

Potato chips are salty.



Pickle is spicy-hot.

WRITE

Put these in the right columns:

popcorn

lemon

chilli

curd

banana

tamarind

groundnuts

pepper

potato chips

cake

apples

pickles

sweet

sour

salty

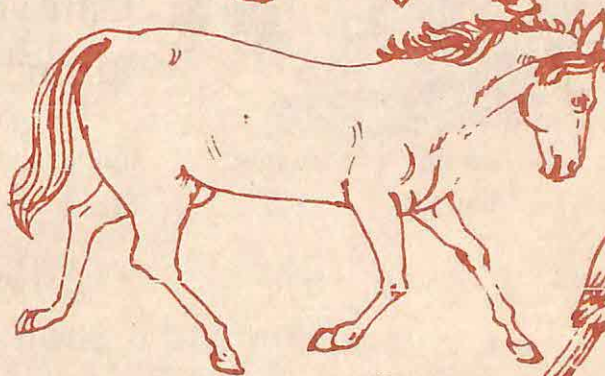
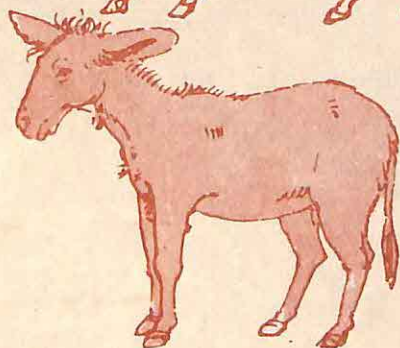
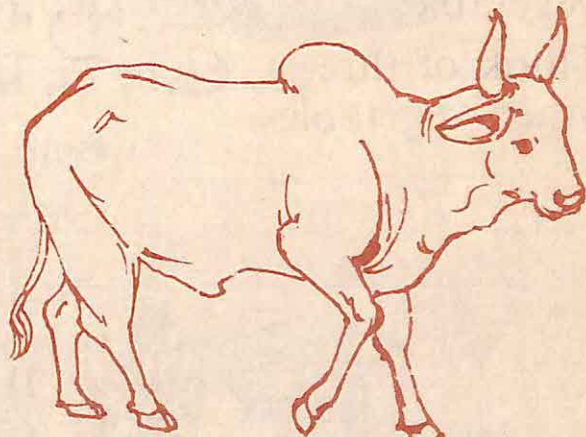
spicy-hot

Can you think of any others?

GROUPS

Put these animals into groups.

Think of wings, legs, horns,, shapes of bodies.



FOOD

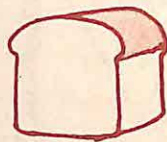
Here are some things
we eat and drink.

There are many different kinds of food.

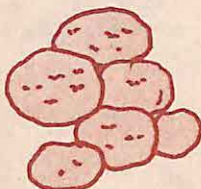
Milk is a liquid.
We drink it.
Think of two
other liquids.



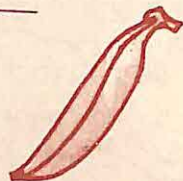
Bread is a solid.
We chew and eat it.
Think of two other solids.



A potato is a
vegetable.
Think of three
other vegetables.



A ripe banana is
a fruit.
Think of three other fruits.



Rice is a cereal.
It comes in grains.
Can you name one other
grain? _____



Put these in the right columns:

chapati
milk

onion
banana

honey
egg

apple
bread

beans
tea

lime- juice

liquid

solid

vegetable

fruit

AIR, WATER AND LIGHT

All living things need air.
All living things need water.
Most living things need light.



There is a simple way to
find out these things.

Get a healthy plant growing in a
clay plant- pot. Place a box over
it so that you shut out the air and light.

Do not water it for four days.

Leave the plant with the box
over it for four full days. Lift
up the box. What do you see?

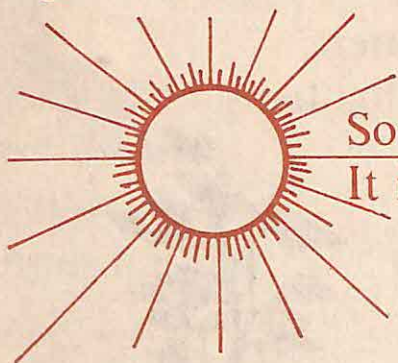
The plant will probably look
like this:



Talk about what you see.
Do not forget to water the plant now!

THE WEATHER

We get all kinds of weather.



Sometimes the sun shines very bright.
It is very hot!



Some days it rains.



Some places have snow in winter.
It is very cold.



Have you seen a storm?



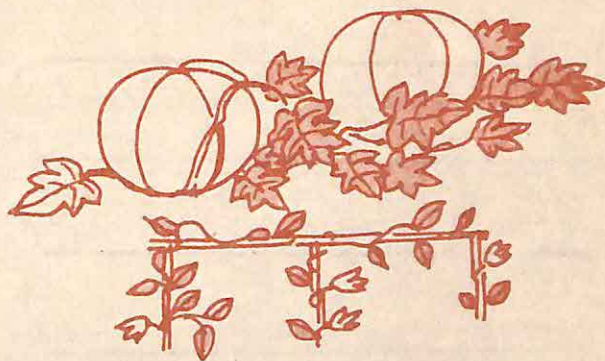
Talk about the weather today.

ALL KINDS OF PLANTS

Some plants are trees.



Some plants are bushes or shrubs.



Some plants are creepers.



Some plants grow in water.

A HOME FOR ANIMALS

Here are twelve animals we know:

dog
pig
elephant

crow
cow
cat

horse
monkey
goat

parrot
rabbit
tiger



Put them in the right columns:

This animal can live
in a house with us

This animal cannot live
in a house with us

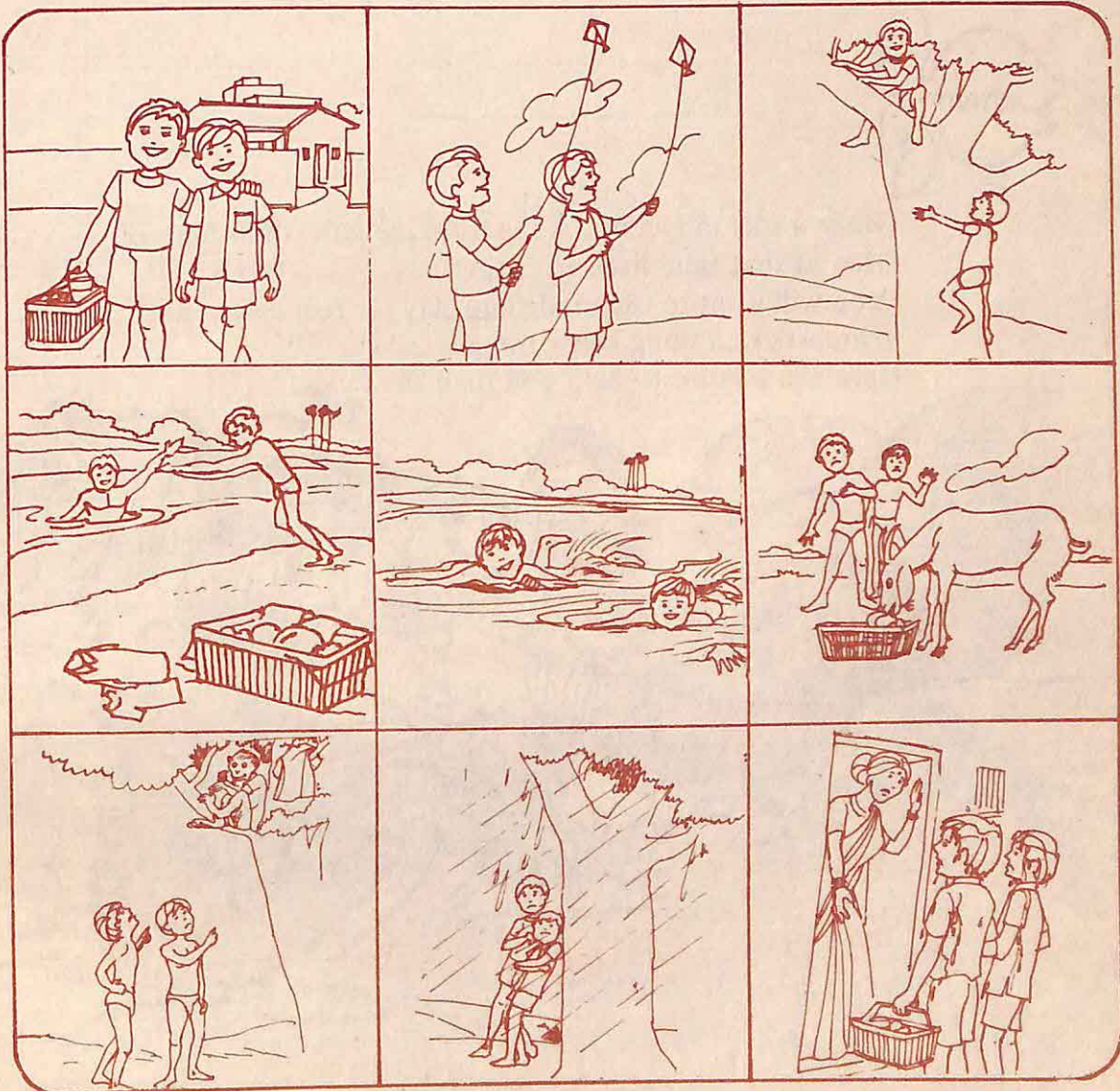
Talk about why the animals in the column on the right side cannot live in a house with us.

LIVING IN A HOUSE



Tell the story from the pictures.

One day two little boys, Raghu and Anil, said 'We don't want to live in a house. We want to live outside, under the sky.'



TALK
ABOUT

- 1 Make a list of the problems Raghu and Anil had.
- 2 What do you think would be pleasant about living in the open?
- 3 What would happen if everyone lived outside and not in houses?

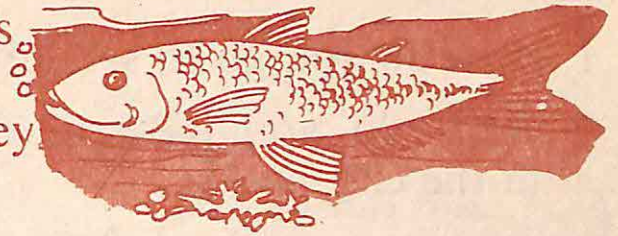
ACTIVITY

Make a tray model of a scene from the past, thousands of years ago. Men at that time lived in caves. You will want to use modelling clay (or real clay), sand, paper, matchsticks among other things. Here is a picture to help you plan the model.



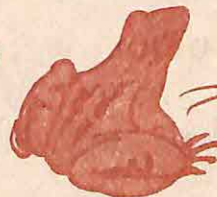
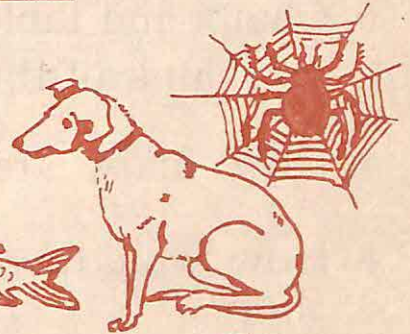
LIVING AND MOVING

Have you seen a fish? It lives in water. It can swim. Fish cannot live on land. They would die if you took them out of the water.



Name four other animals that live in water.

Name three things that can live in both water and on land.



WRITE

Here are pictures of some animals we know. Put a circle round those that live in water, or can live in water.

TALKING ABOUT THINGS

- 1 How do you go to school?
- 2 What do you have to do when you want to travel in the city bus?

(words to use: wait bus-stop queue conductor tickets)

- 3 What games do you like to play?
- 4 What do you like about rain? What can you not do when it rains hard?
- 5 How do you keep cool in summer? (Think of clothes, food, shelter)
- 6 Chairs and tables are made of different things. Can you think of three of these?
- 7 How many trees do you know the names of?
- 8 How would you buy vegetables in a vegetable shop?

(words to use: fresh price weigh bill pay)

- 9 Name and draw below five of your favourite fruits.

EATING AND DRINKING

Come on Gopal
Walk faster!
The boys are
waiting for us.

I can't.
I haven't eaten.
I don't want to play.

You almost
dropped that
trunk on my leg!

Sorry. I feel weak.

We need food.
Without it, we feel weak.
We feel tired. We cannot work or play well.

TALK
ABOUT

- 1 How many times do you eat in a day?
- 2 What do you eat in the morning?
- 3 What things do you like to eat?

1 What are the four meals of the day called?

2 What did you have for breakfast today?

3 Ramu ate two pieces of toast with butter, one hard-boiled egg and a banana. He drank a glass of milk.

Make a list of all the things he ate and drank.

What two things were boiled before he had them?

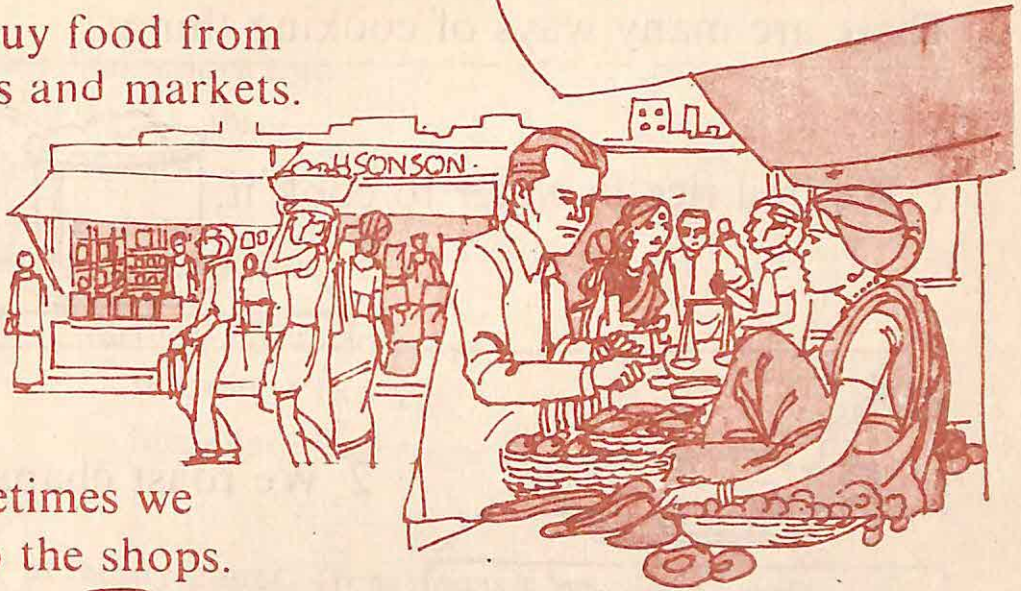
4 Make a list of all the things you ate yesterday.

Mark all the cooked food 'C'

5 Name three fruits, three vegetables and three liquids.

BUYING THINGS

We buy food from shops and markets.



Sometimes we go to the shops.

Sometimes things are brought or sent to us.



This cabbage is fresh.
The leaves are crisp.
They are green.

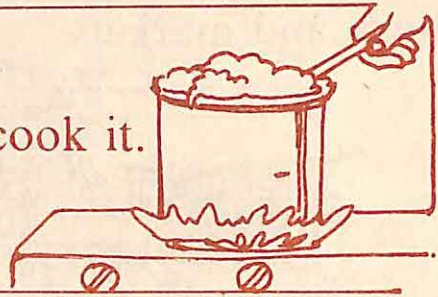


This cabbage is not fresh. It has been in the shop for many days. The leaves are yellow and dry.

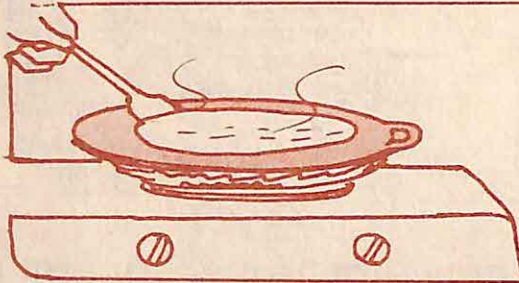
MANY WAYS TO COOK

There are many ways of cooking things.

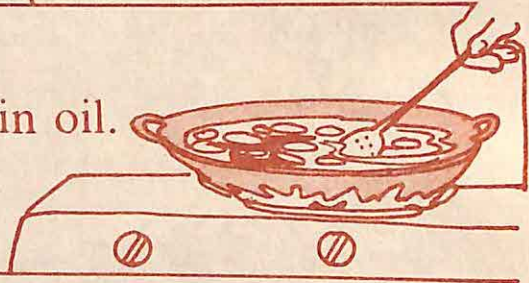
1 We boil rice in water to cook it.



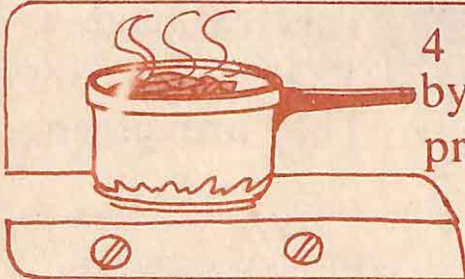
2 We roast chapatis.



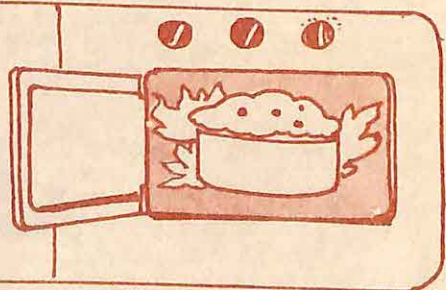
3 We fry potato chips in oil.



4 Vegetables can be cooked by steaming them in a pressure-cooker.



5 A cake is baked in an oven, a closed box.



LEGS

Most animals have legs.

We call them limbs.

Animals move about with the help of their limbs.

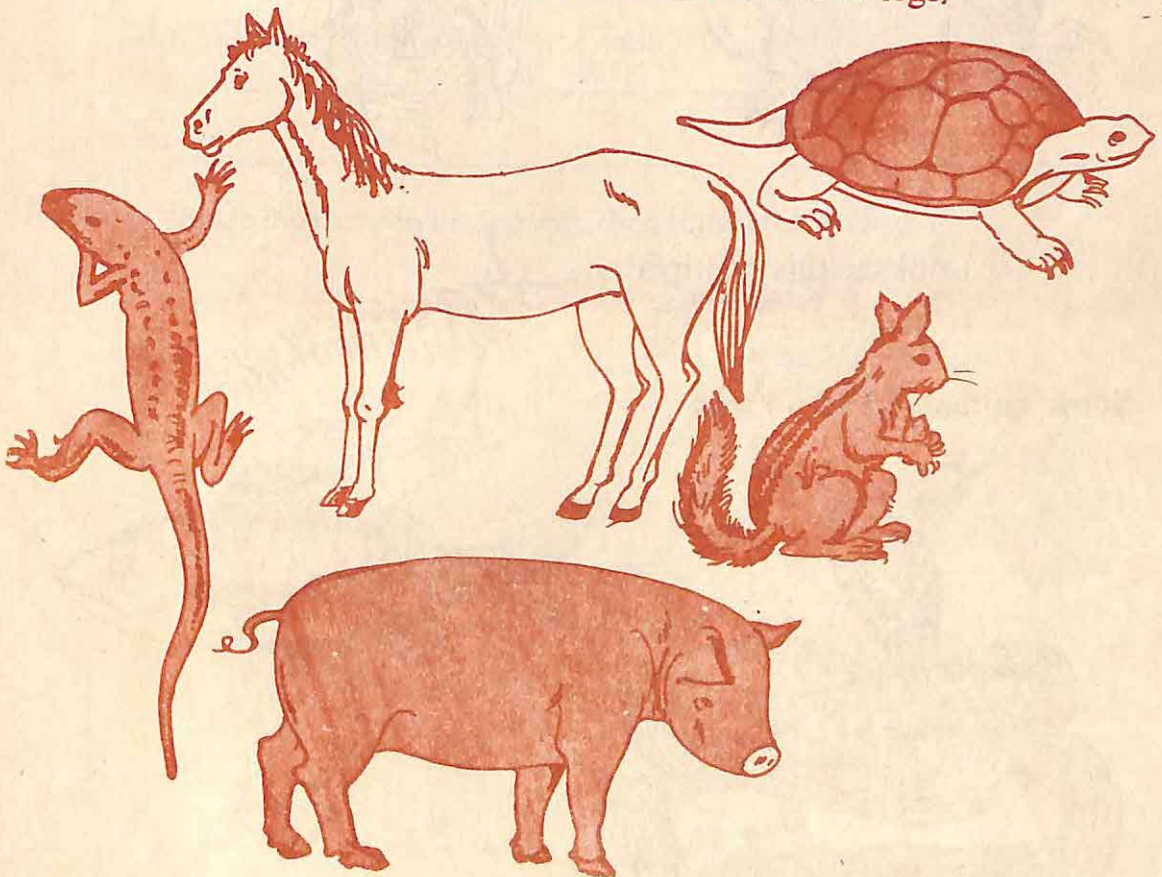
We move about on our legs.

Birds have two wings.

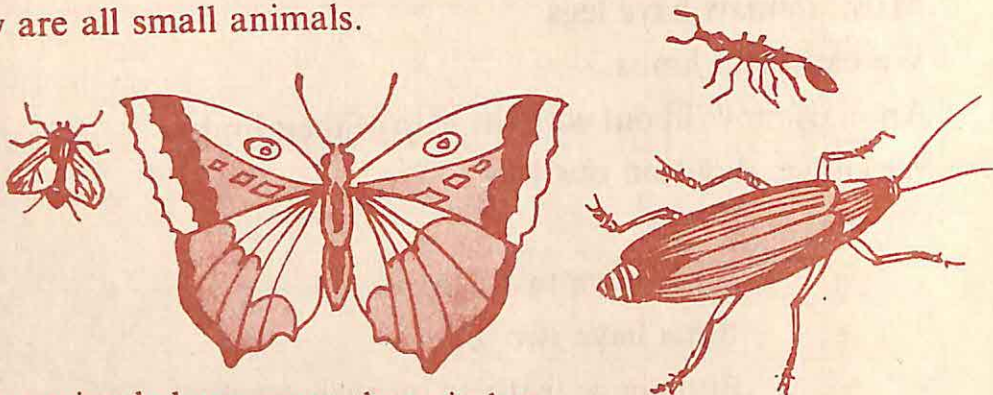
Birds have two legs.

Birds have feathers on their bodies.

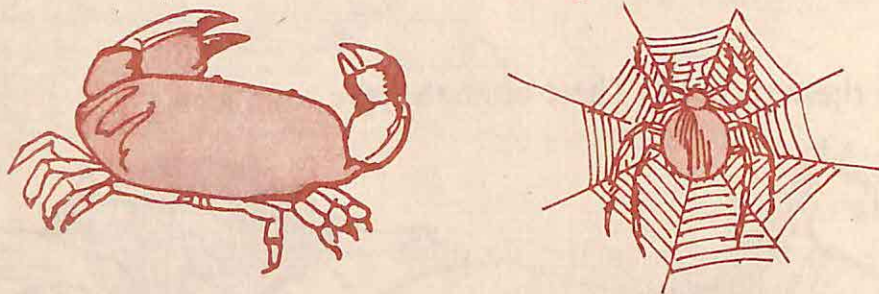
Look at these pictures. These animals have four legs:



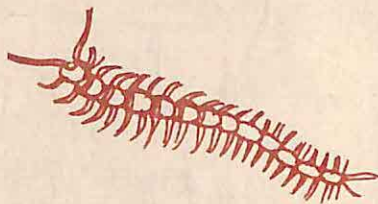
Some animals have six legs.
They are all small animals.



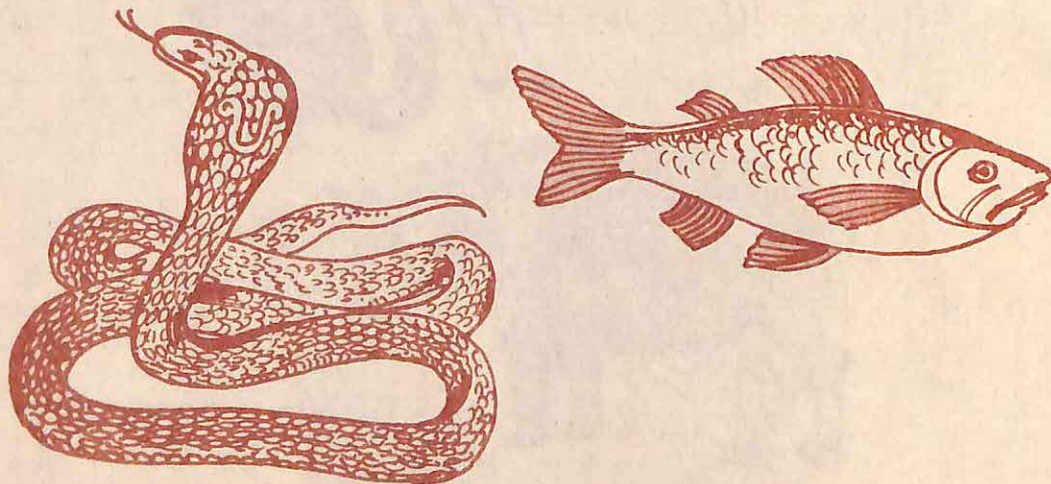
Some animals have more than six legs.



Look at this centipede.
It has many legs!



Some animals have no legs.



WRITE

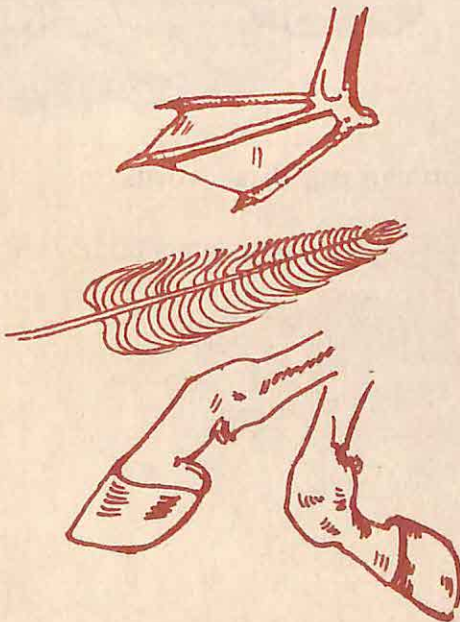
1 How many legs does a goat have?

2 Name two animals which have horns.

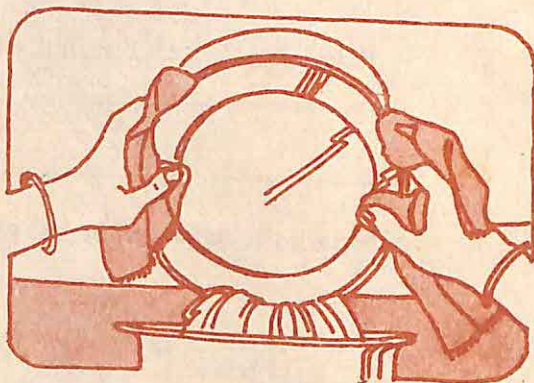
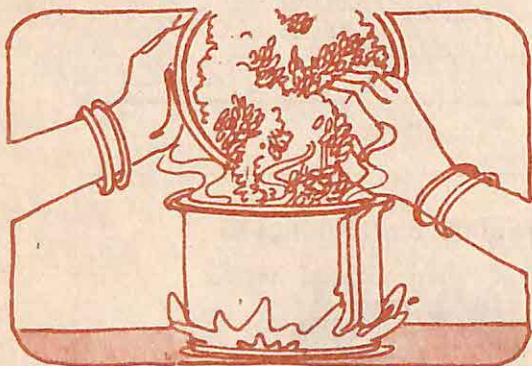
3 Are there any animals without legs?

4 What do birds have that other animals don't?

5 Match the parts on the left with the animal each belongs to.



COOKING RICE



TALK
ABOUT

Talk about each picture. You can use these words:

pick out stones wash

boil drain off water

PUTTING THINGS AWAY

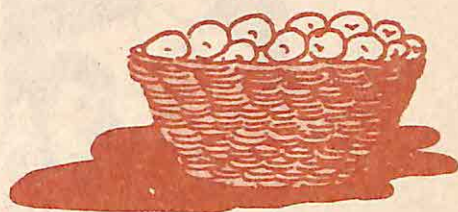
We buy many kinds of food.

We store food so that it stays **clean and fresh**.

We put away things in such a way that we will find them when we look for them.

Vegetables and fruit can be stored in a basket.

Some people have a refrigerator.



People store cereals like rice and wheat in large tins or drums. The lids are shut tight to keep away insects and dust.

We can store spices like chilli and pepper in bottles.



LOOKING ALIKE

Who do you look like?

Some of us look like our mothers or fathers.

Or our grandfathers, grandmothers, uncles or aunts.



Arun looks like his father.

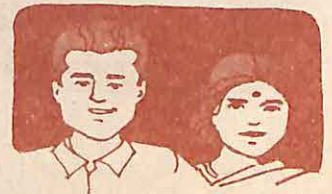
He has the same black hair.

His nose and the shape of his face are like his father's.



These children look like their parents.

Can you match the child to the right parent?



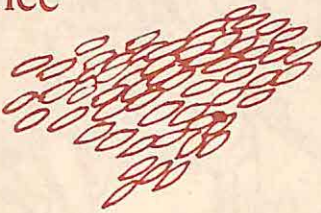
HOW DO WE EAT THESE

Some things have to be cooked before we eat them.
Some things can be eaten as they are.

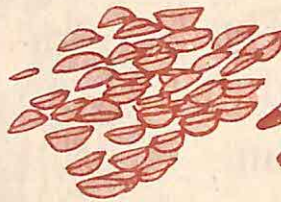
WRITE

Put these in the right columns:

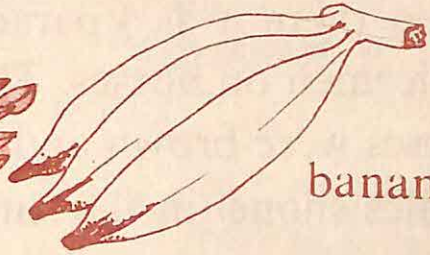
rice



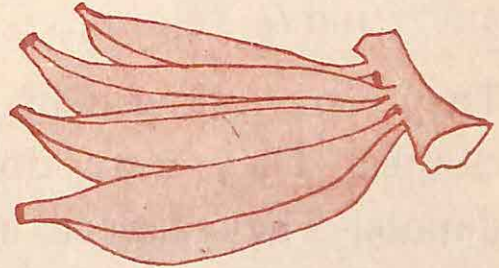
dal



bananas



onions



green bananas

Must be cooked

Can be eaten raw

REPUBLIC DAY

Every year on 26 January, we celebrate Republic Day. Here is a child's account of a Republic Day parade. We went to the parade grounds at 7.00 in the morning. The sun was shining brightly.

First there was a march-past. Then there was a parade of policemen on horses. The horses were brown and their bodies shone in the sun.



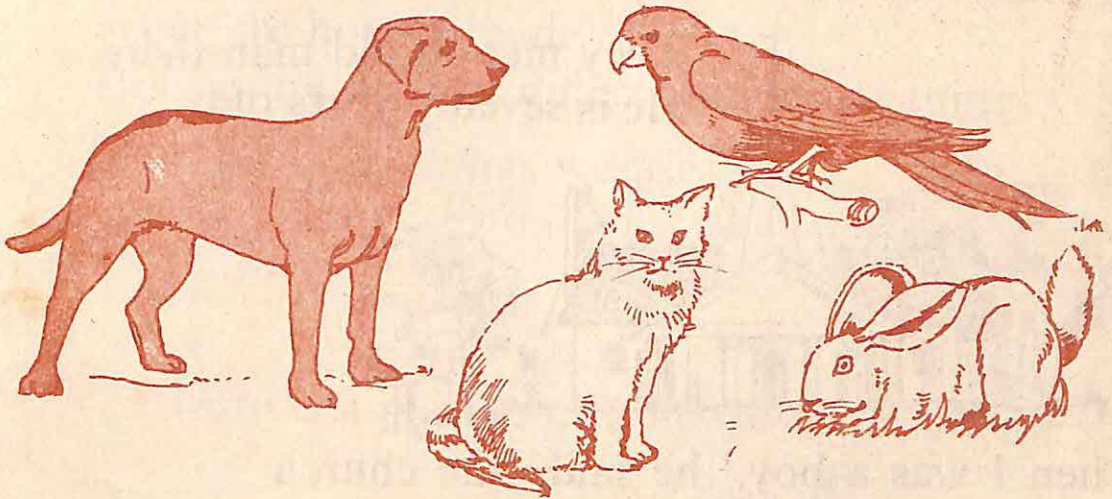
They were followed by boys and girls in bright clothes. They were doing many kinds of folk dances. They danced and sang and waved to us. It was a grand parade.



- 1 Have you seen a parade?
- 2 Is a parade a happy or a sad event? How do you know?
(Hint: music, dancing, laughter).
- 3 What did you see in the parade?

OUR PETS

Some of us have these animals at home.



TALK
ABOUT



- 1 Do you have any animals at home?
Which ones?
- 2 What colour is your pet? What is its
name?
- 3 What does it eat?
- 4 Who feeds it?
- 5 How else do you look after it? (cleaning
box or cage, taking for walks, giving a
bath).



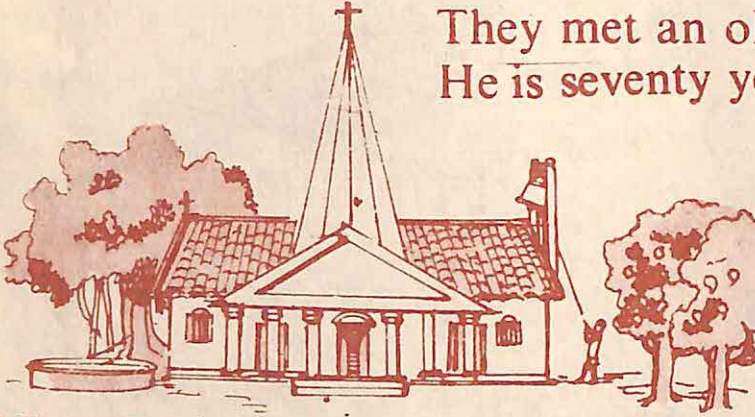
Find out **the** answer 'Yes' or 'No'. If the answer is 'no' try to say why not. Your teacher will help you.

- 1 Should you give your cat a bath?-----
- 2 Can your rabbit eat a carrot?-----
- 3 Can you put a collar round **your cat's neck**?-----
- 4 Can your parrot drink milk?-----

THE OLD CHURCH

Bina and Madhu are friends. Yesterday they went to see an old church down the street.

They met an old man there.
He is seventy years old.



‘When I was a boy,’ he said, ‘the church walls were white. There were two big mango trees on one side. We had a banyan tree at the back. There was a bell on top. We rang it every evening. The roof was made of tiles.’

He showed the girls a picture of it.

Bina and Madhu looked at the church.

How different it looked now!

The walls were old and yellow.

The banyan tree was there.

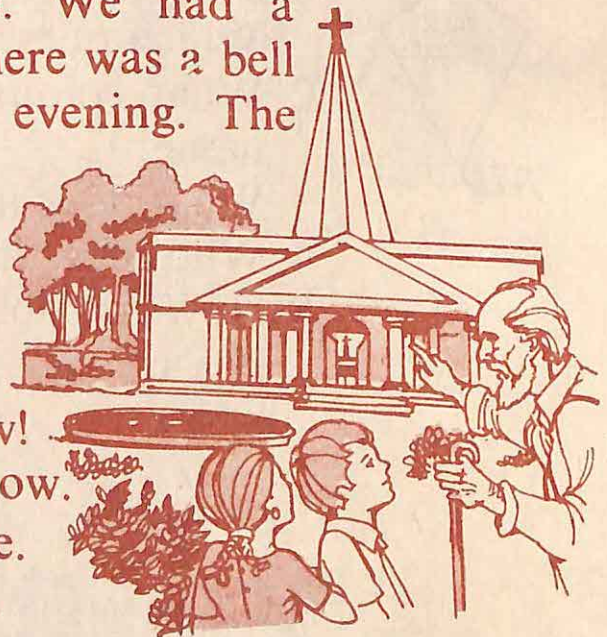
The mango trees had gone.

They had been cut down.

The roof was now a cement roof.

There were beautiful rose-bushes in front.

On the side, there was a small pond of fish.



BUILDING HOUSES

We live in many kinds of houses.

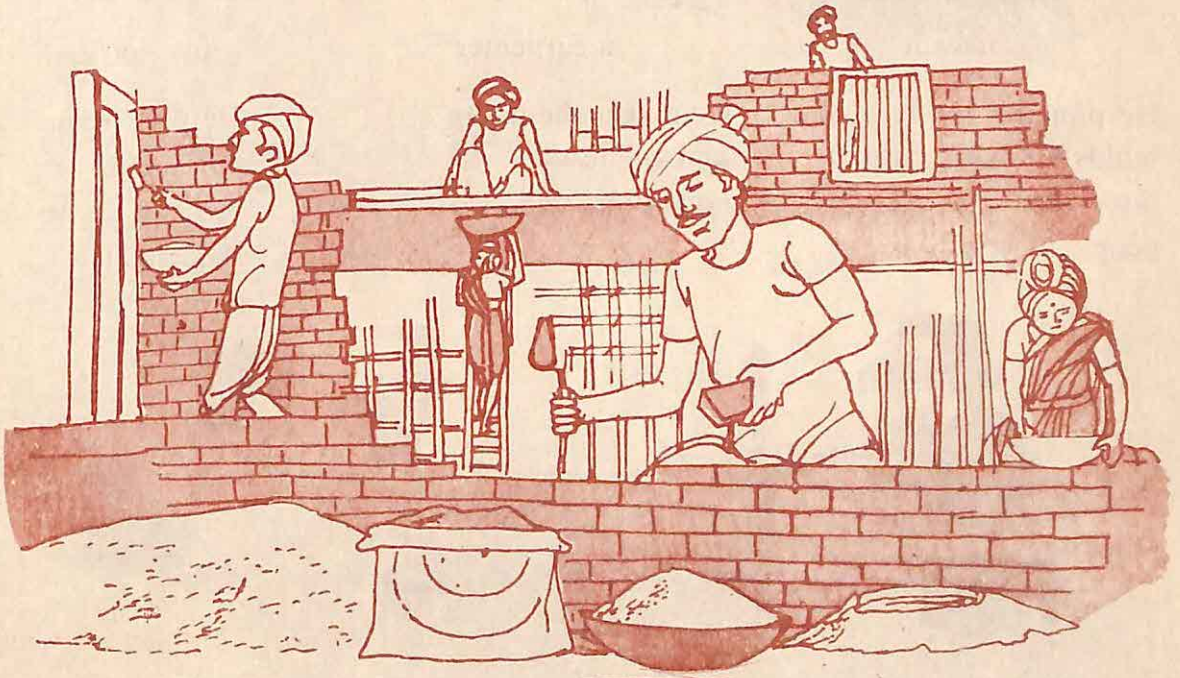
What are houses made of?

Houses are built of different kinds of things.

Here are some things we use:

sand cement gravel iron rods bricks wood

Here is a picture of a house being built.



TALK
ABOUT

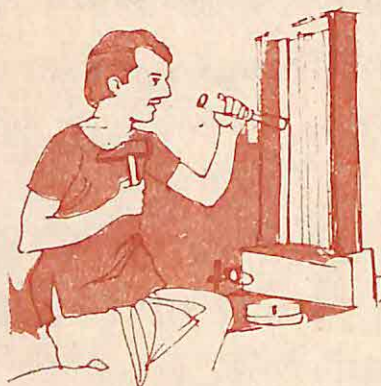
- 1 Where is the cement?
- 2 Where are the iron rods?
- 3 What are the bricks being used for?
- 4 Where will they use the wood?

When we build a house, different people help. Here are some of the people.



a mason

He prepares the base and builds the walls and floors. He has many people to help him.



a carpenter

He makes the doors and windows and cupboards.



an electrician

He puts in the wires and switches so we have lights and fans.



a plumber

He fixes the pipes so we can have water in the house.



a painter

He paints ceilings, the doors and windows.

ANIMALS AND THEIR HOMES

Look at this crow.
It has a stick in its beak.
It will build a nest with sticks.



Animals need homes to live in.
Some animals make their own homes.
Some build nests, or live in holes in the ground.
Can you think of three animals **that do** this?



Here are the names of some animals, birds and insects:

cat

parrot

wasp

tiger

frog

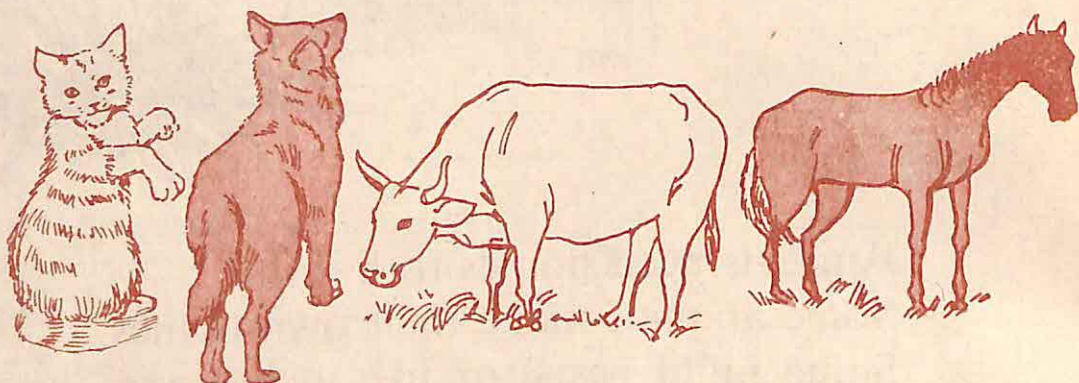
Talk about their homes.
Do all of them build homes?
Why don't some of them build homes?

Do cats build houses?

No, they do not. Many of them live in our houses.

Some of them live in the corners of buildings, shops and market-places. People make homes for dogs and cats.

Here are some pictures of animals we find in houses, and animals who stay with us.



Here are pictures of some more animals we find in our homes. Can you name them?



Your teacher will write the names on the blackboard.



Now for each animal ask and answer the following questions:

- 1 What does it look like?
- 2 What does it eat?
- 3 Why do we not like to see them in our houses? Answer this carefully by finding out from picture books and from older people at home.

ANIMALS AND THEIR HOMES

Collect pictures of animal homes for your scrapbook.

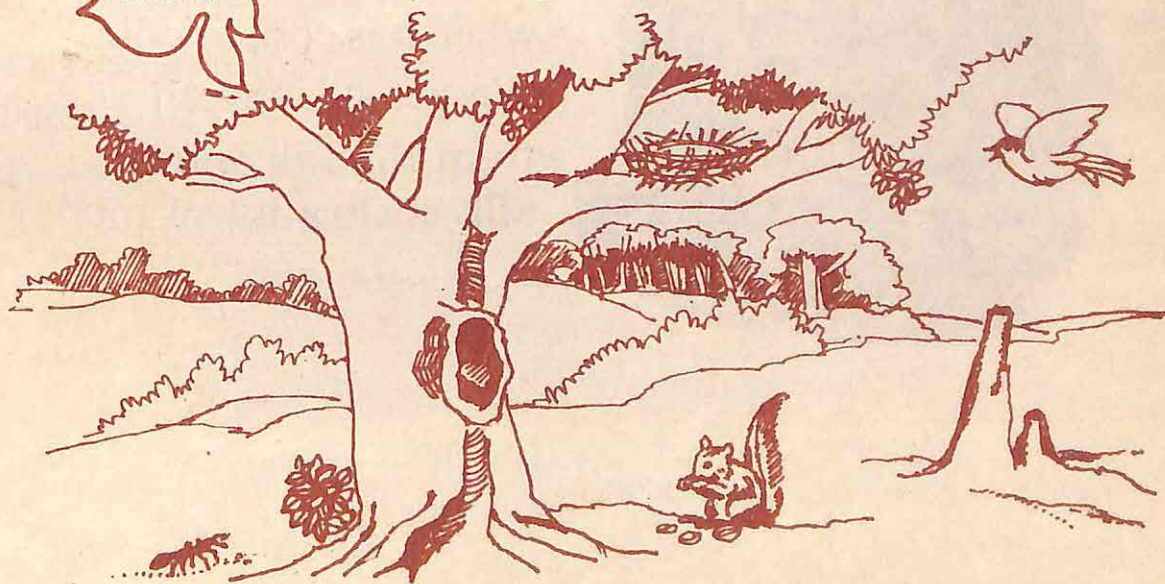


Fill in the missing letters of the words:

- 1 A spider spins a W——B.
- 2 Bees live in H——V——S.
- 3 Crows build ——ES——S on trees.
- 4 Some crabs live in H——L——S in the ground.



Lead each animal to its home.
Colour the picture.



THE CLOTHES WE WEAR

We wear so many different kinds of clothes.
They are made of many kinds of materials.

Here is a cotton shirt.
We wear cotton
clothes in summer.
The cloth is made
from cotton thread.
We get the cotton
from the cotton plant.



This is a silk kurta.
It feels good to wear
when it is cool or cold.
We get silk thread
from the silk worm.
Silk costs a lot of money.



Look at this woollen pullover.

We wear woollen clothes only when it is very cold.

The wool comes from sheep.

Not all cloth is made from the things we get from plants and animals.

This is a nylon shirt.

The nylon thread is made of materials we get from coal and petrol.

Nylon clothes are easy to wash.

They also dry very quickly. We do not need to iron them.



MAKING A PLAN

Mr Shah wanted to build a good house for his family. He wanted to build a middle-sized house with a small garden.

We have to plan things before we build them. So Mr Shah called in Mr Krishnan to help him. Mr Krishnan plans houses and buildings. Mr Shah spoke to him and he wrote this down on a sheet of paper:

A House for Mr Shah

Size of house? 1 Middle-sized, not too big

2 The house must have a garden

Number of people? 4 people will live in the house

Number of rooms? One living room

Two bedrooms

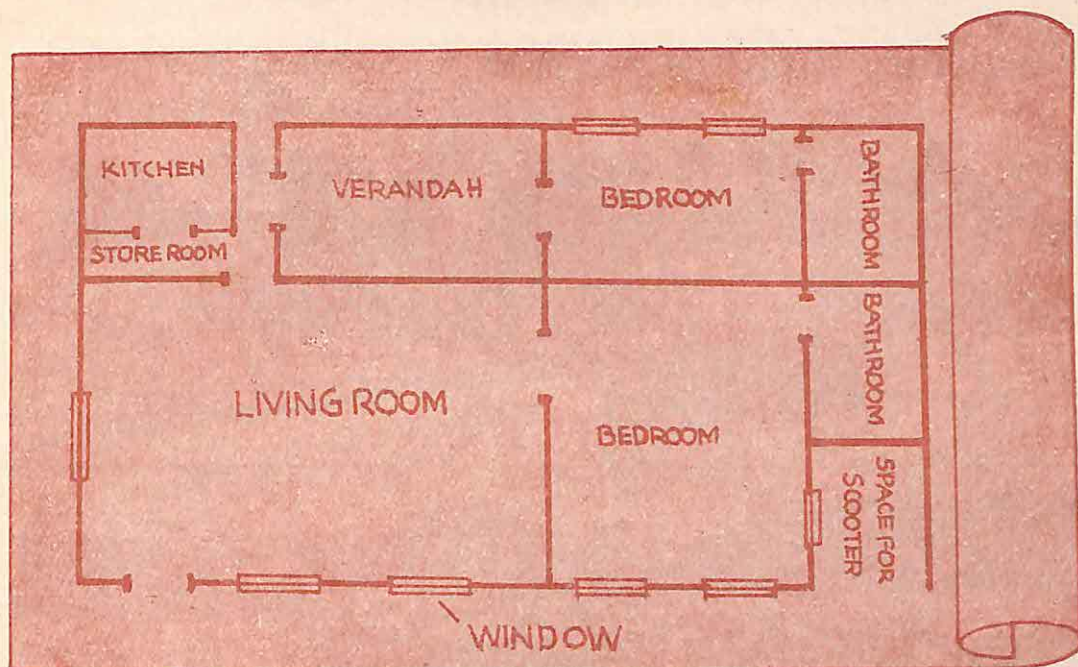
Two bathrooms

A kitchen and a store-room

A small verandah

Anything else? Yes. A shed for a scooter.

Then he went away and came back two days later with a plan. A plan shows you what the house looks like from above if you take off the roof.

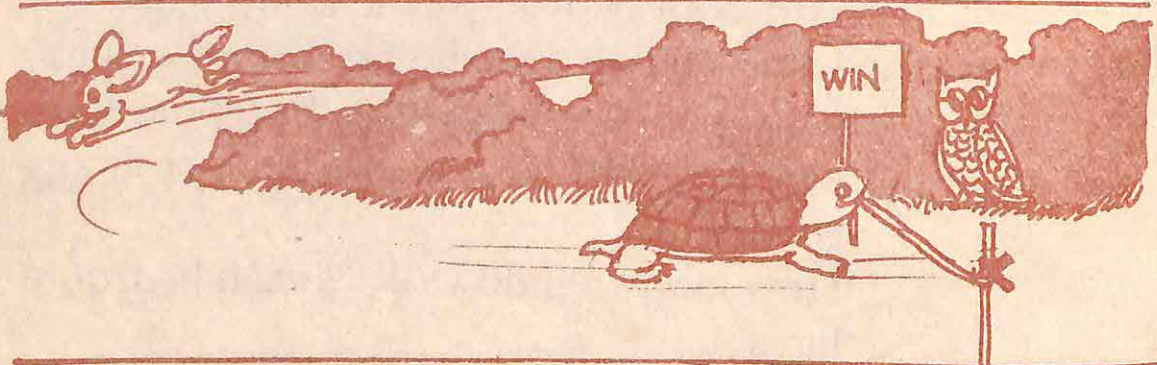
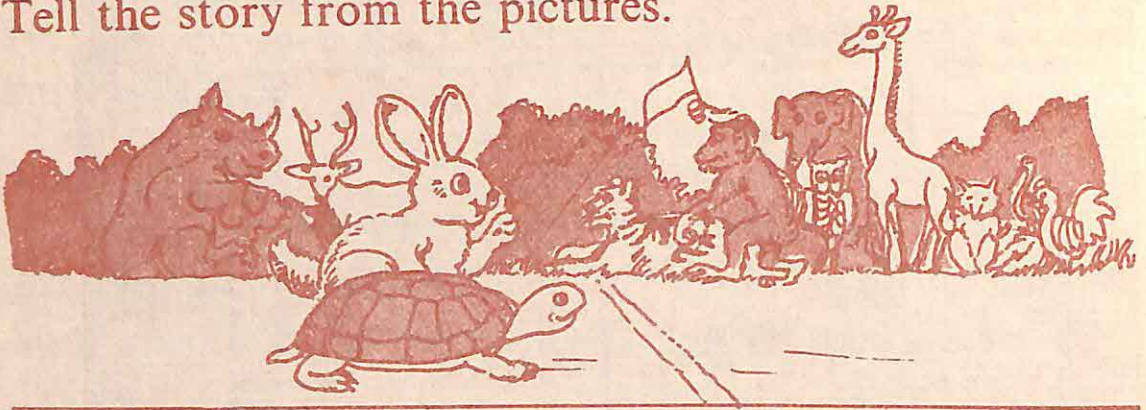


Now look at Krishnan's plan:

- 1 Which room do you come into when you enter the house?
- 2 How many bedrooms does the house have?
- 3 Is the kitchen smaller than the living-room?
- 4 Are both bedrooms the same size?
- 5 Can you enter the house from the back?
- 6 Can you go from one bedroom into another without coming into the living room?
- 7 How many windows does each bedroom have?

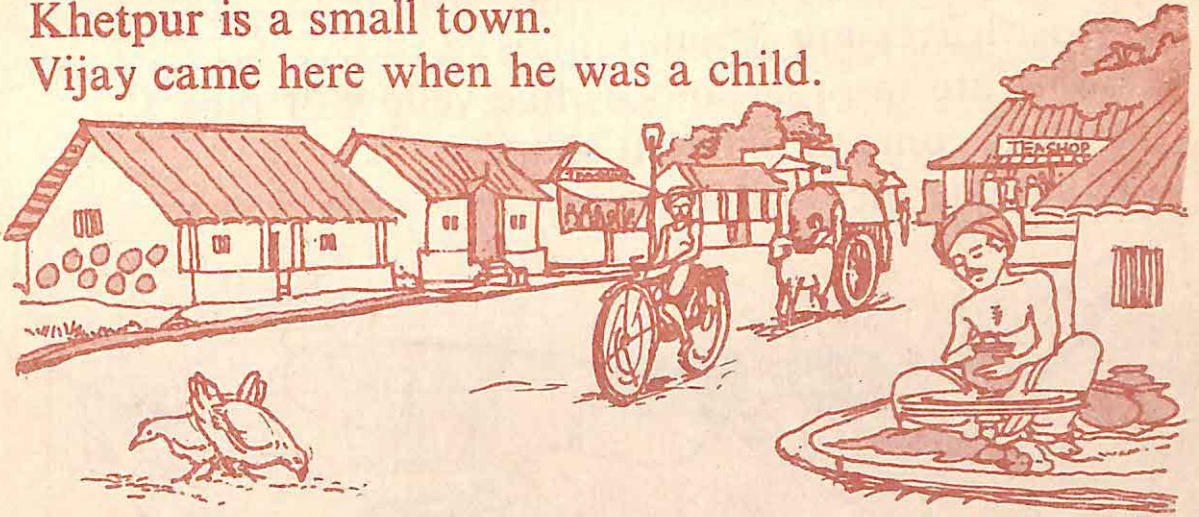
THE HARE AND THE TORTOISE

Tell the story from the pictures.

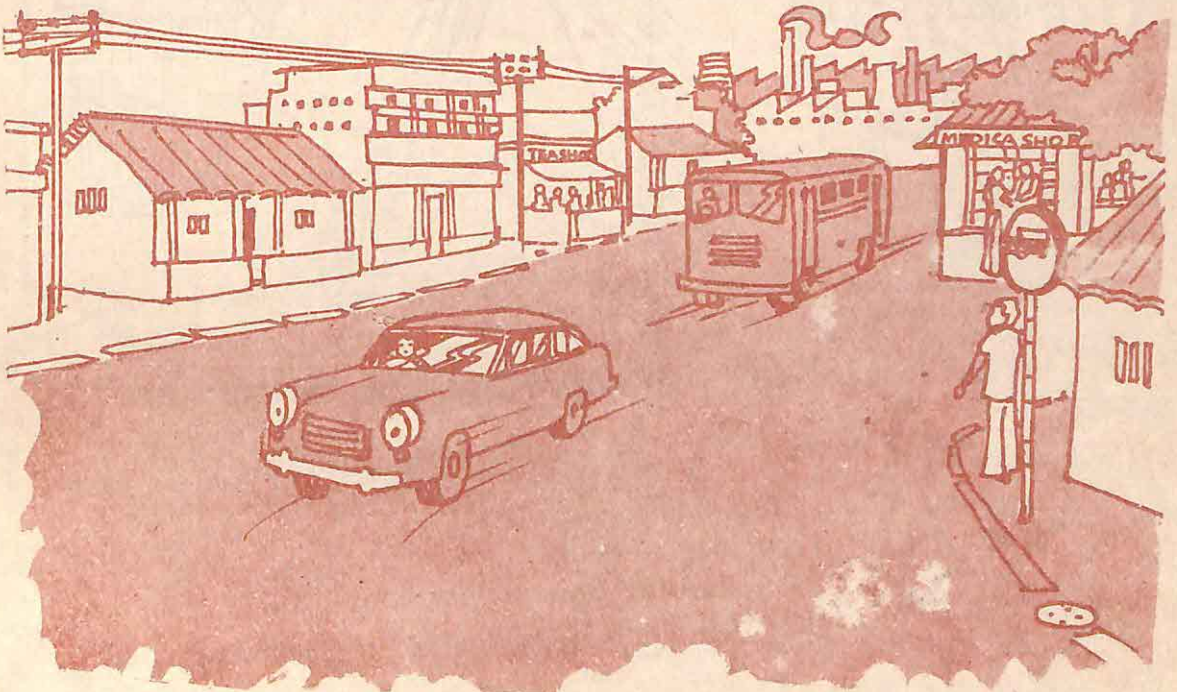


THEN AND NOW

This is a picture of a street in Khetpur.
Khetpur is a small town.
Vijay came here when he was a child.



When Vijay was twenty years old, he came back to Khetpur.



Make a list of the changes in the town.

LEAVES

There are many kinds of leaves.
Most leaves are green.
Some are in other colours like yellow or pink.
Leaves come in different shapes.
Complete the outlines here:



Can you say what leaves they are?

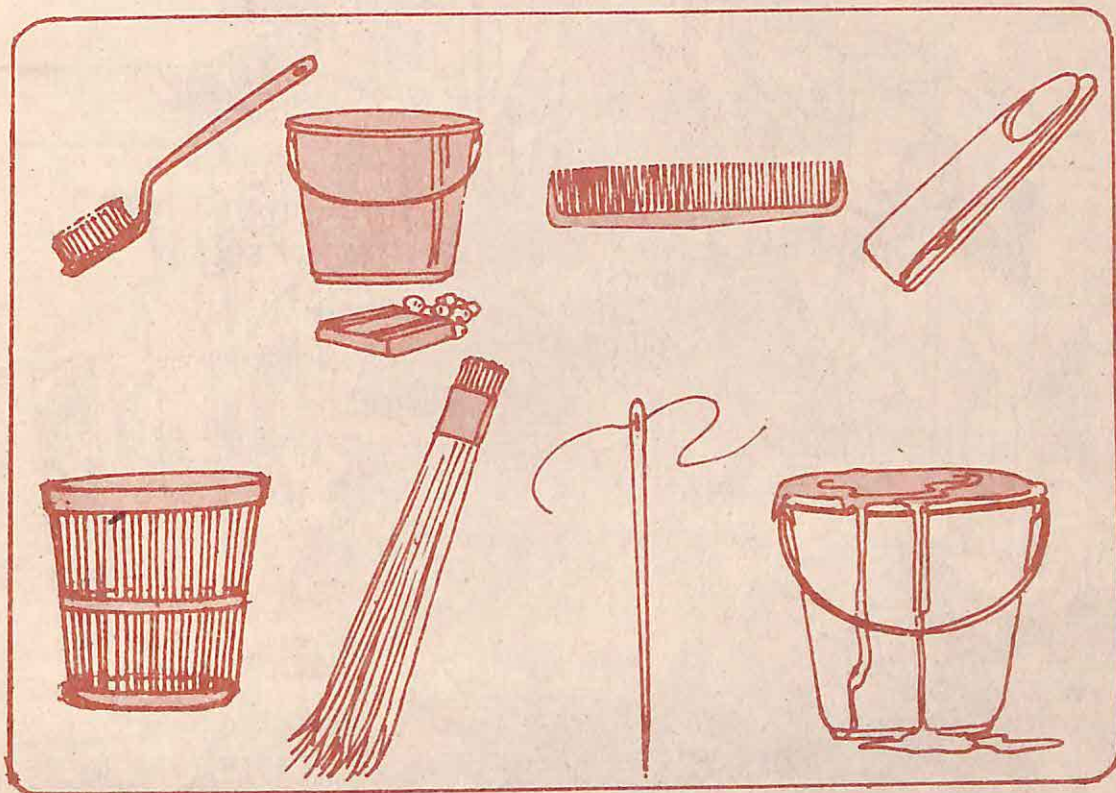


Collect five different leaves.
Press them in books.
Paste the dried ones in your scrap-book.
Say what leaves they are.

GOOD HABITS TO LEARN



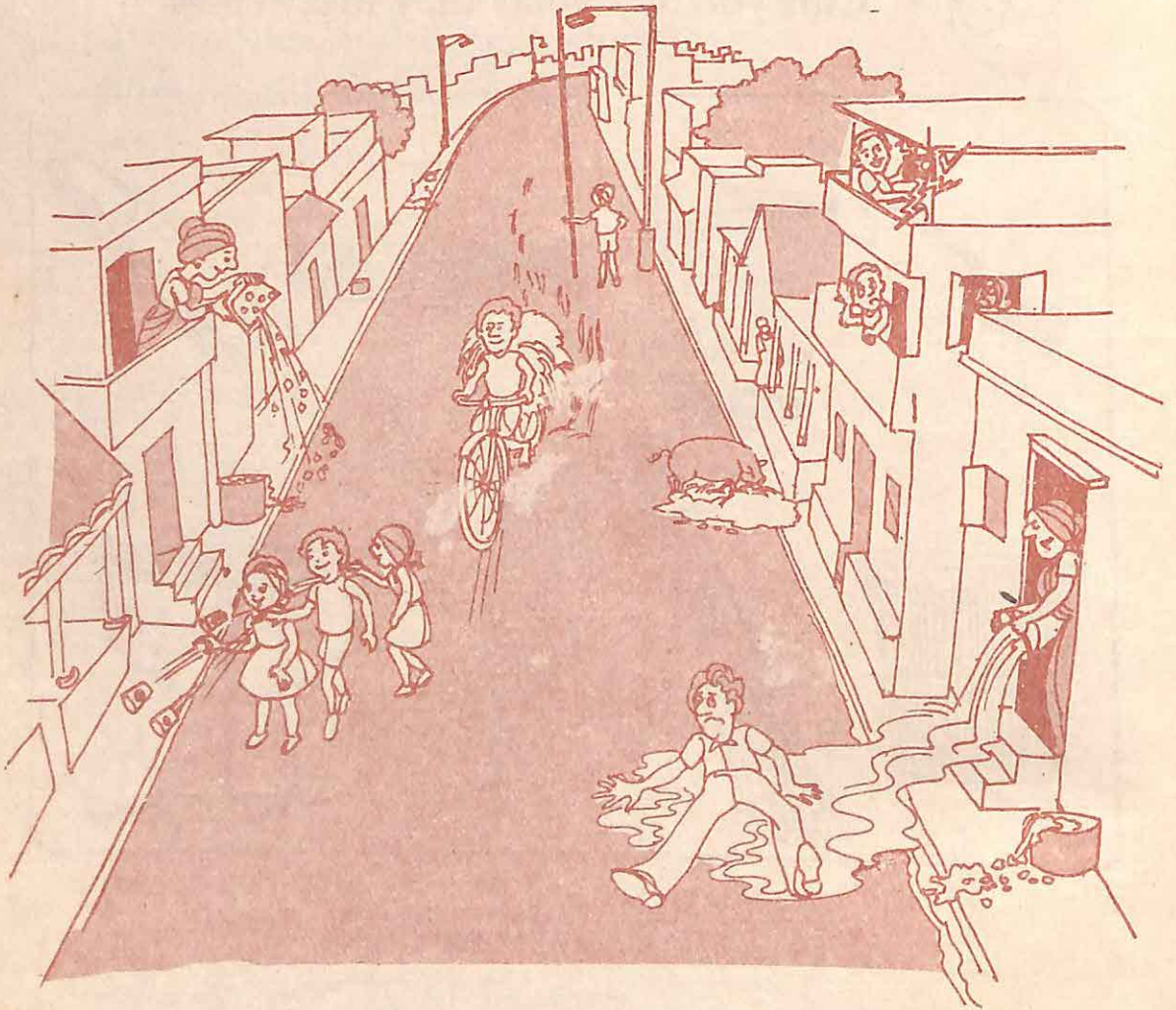
Here are eight pictures of things we use.
They make you think of eight good habits.
Can you say what they are?



Talk about other good habits you learn at home, at school and at play.

CARING FOR THINGS AROUND US

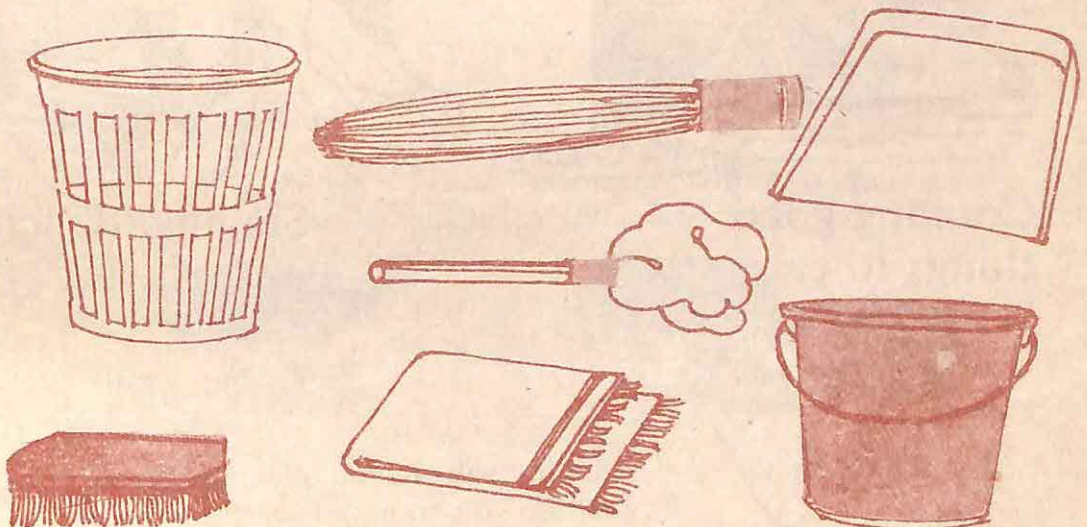
Look at this picture.



Look at the picture on page 42.

TALK
ABOUT

- 1 What is the woman throwing down? Where should she throw it instead?
 - 2 What has happened because the woman has thrown out water on the street?
 - 3 Where can the children throw the ice-cream cups?
 - 4 In what ways is the man with the radio bothering his neighbours? What should he do?
 - 5 What do you think might happen if the boy with the pole is not careful?
- What are the following things used for?



Talk about ways of keeping your classroom and school compound clean.

FESTIVALS

A festival is a happy event.

We celebrate most festivals with other people. Here are some of the things we enjoy doing.



Making decorations with paper and cardboard



Making patterns on the floor



Cooking good things to eat



Singing, dancing and playing

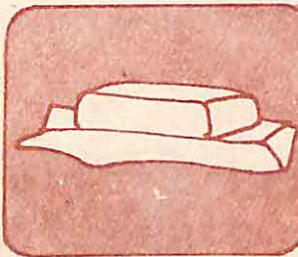
TALK
ABOUT

- 1 What festivals do you celebrate at home?
- 2 What do you do on a festival morning?
- 3 Who do you celebrate festivals with?
- 4 What do you do on festival evenings?

MILK AND THE COCONUT TREE

We make many things from milk.

butter



curds



sweets



cheese



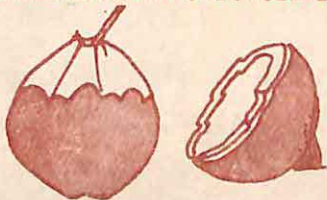
milk-powder



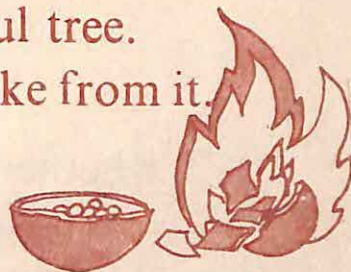
ice-cream



The coconut tree is a very useful tree.
Look at all the things we can make from it.



Coconuts to eat and coconut water to drink.



the shell for firewood and small containers.



the fibre for making mats, coir mattresses, carpets, door-mats



leaves for mats and for thatching roofs

THINGS WE USE



Make a list of things you use in your kitchen. Add even small things like spoons, bottle-openers, coconut-scrapers, if you use them.

Your teacher will make one big list out of all your lists and write it out on the blackboard.

Now, for each thing in the list, talk about

- 1 what you use it for
- 2 whether you use it often (i.e. every day)
sometimes
very rarely
never
- 3 whether you really need it. Could you do without it? What could you use instead?
- 4 how you keep these things clean.

Look at these pictures.

They are pictures of things we use in our houses and in our work.

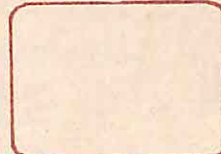
Draw the pictures in the squares. Fill in the blanks.



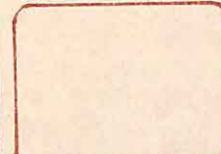
Ha———ers knock nails into wood.



An a———e chops wood.



An e———g-beater whips eggs.



Pl———rs can be used to c———t wire.



A pair of sc———sors cuts paper and cloth.

Make a list of things you use

1 in your kitchen

2 in your classroom

Draw three pictures of things you use.

TALKING TO ONE ANOTHER

When people **speak**, they speak a language.

L-A-N-G-U-A-G-E: Learn the spelling. There are many languages.

In India we have more than fourteen languages.

What language do you speak at home?

What other languages do you know?

Say these in your language (It could be the language you speak at home or the language you like, or a language you are learning):

My name is

I am _____ years old.

I am feeling very hungry.

Do you like mangoes?

What a lovely flower!

Can you think of the names of five Indian languages?

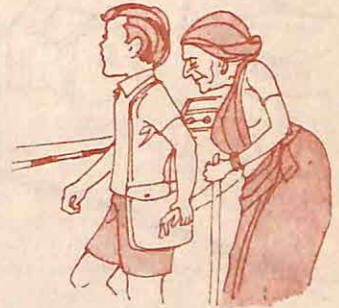
What language or languages do you speak?

LIVING WITH PEOPLE

We live with people around us.
We talk to and work with people.



What do these pictures tell you about Ram?



Do you know these words?

Please

Thank you

Sorry

No, thank you

FINDING OUT ABOUT TOWNS

Colour this picture of a hill town.

WRITE

Write the following labels in the right places.

hills

snow

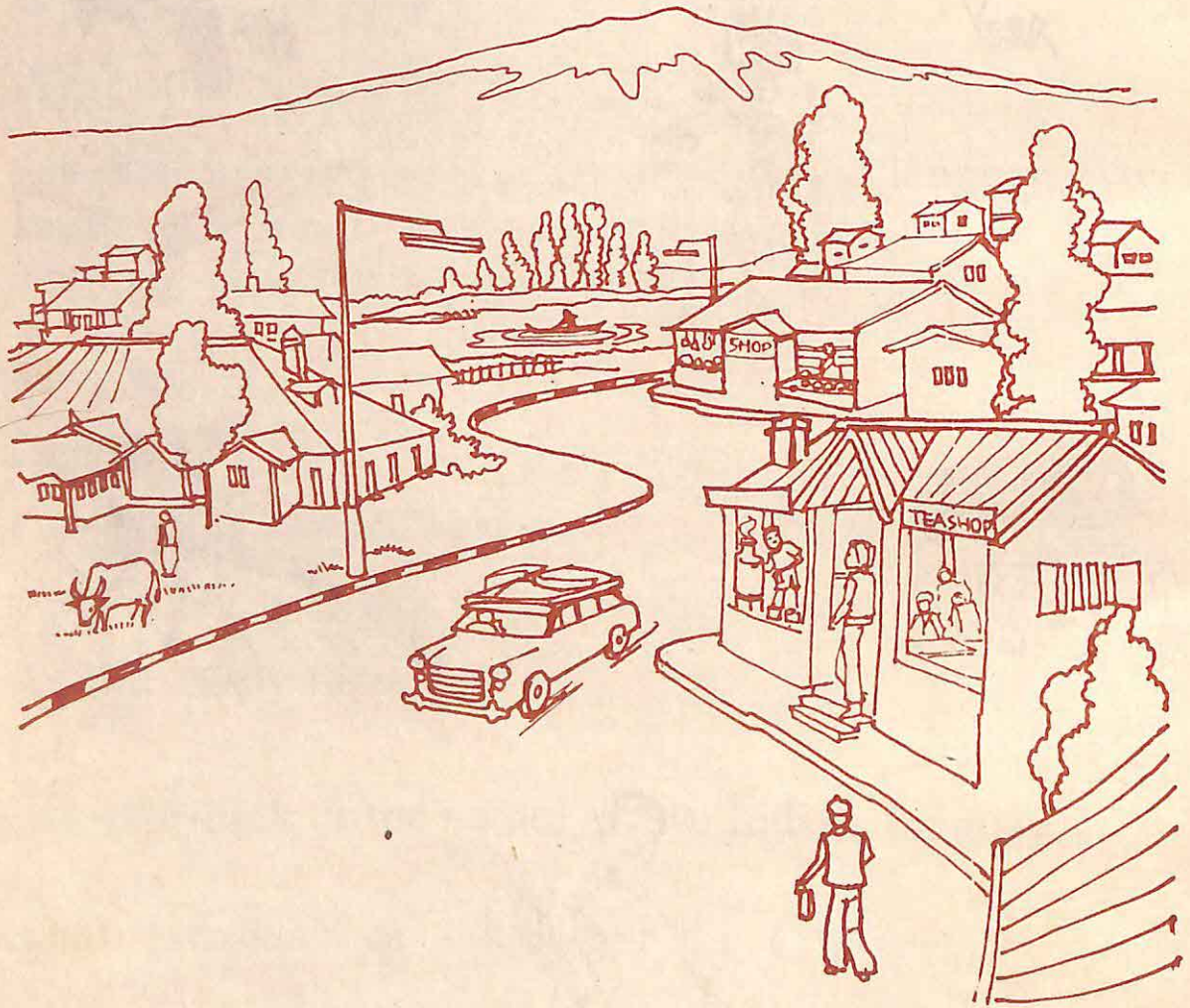
lake

road

street

street lamp

tea-shop



Answer these questions in three or four words each.

1 Where are the hills (far away, very near)

2 Is there snow on the hill-tops?

3 Is there snow in the town?

4 Is it summer or winter in the town? How do you know?

5 Is there traffic in the town? Is it a crowded town?

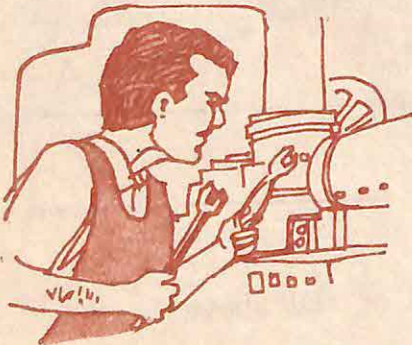
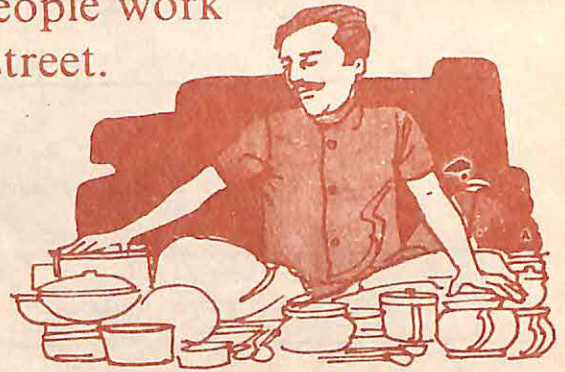
6 Name and write about a hill town you have visited, or read about.

PEOPLE AT WORK

Some people work in offices or buildings.
Or schools and colleges.



Some people work
on the street.



Some people work in factories, or
sheds, or workshops.

Some people work at home.



USING WATER

We get water from rivers, tanks and lakes.
Every year, rain fills up the rivers and
lakes with water.

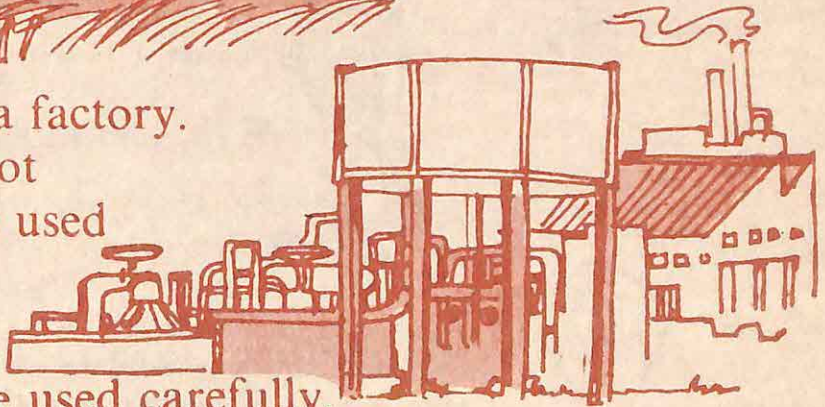
It comes to us in canals and pipes.
It is filtered to make it safe for us to use.

You know that we use water for
drinking. cleaning washing
cooking bathing
Here are some more ways we use water:

Ramlal waters his fields.



Water is used in a factory.
It helps to cool hot
things and is also used
to make steam.



Water should be used carefully.
It should never be wasted.

THINGS WE USE

Here are pictures of some more things we use.

- a) Some things make our work easy.
- b) Some things help us do our work quicker.
- c) Some things help us avoid wastage.

WRITE

In the pictures below, mark (a) (b) or (c) in the space provided.

Some things may have (a) and (b). Your teacher will help you.



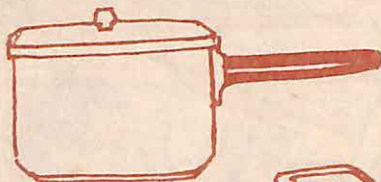
grinding stone ()



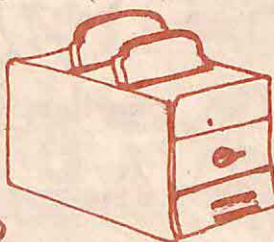
stove ()



chopping board ()



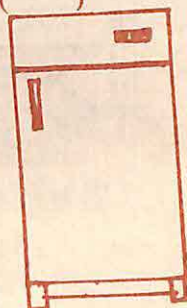
pressure cooker ()



toaster ()



Electric mixer ()



Refrigerator ()



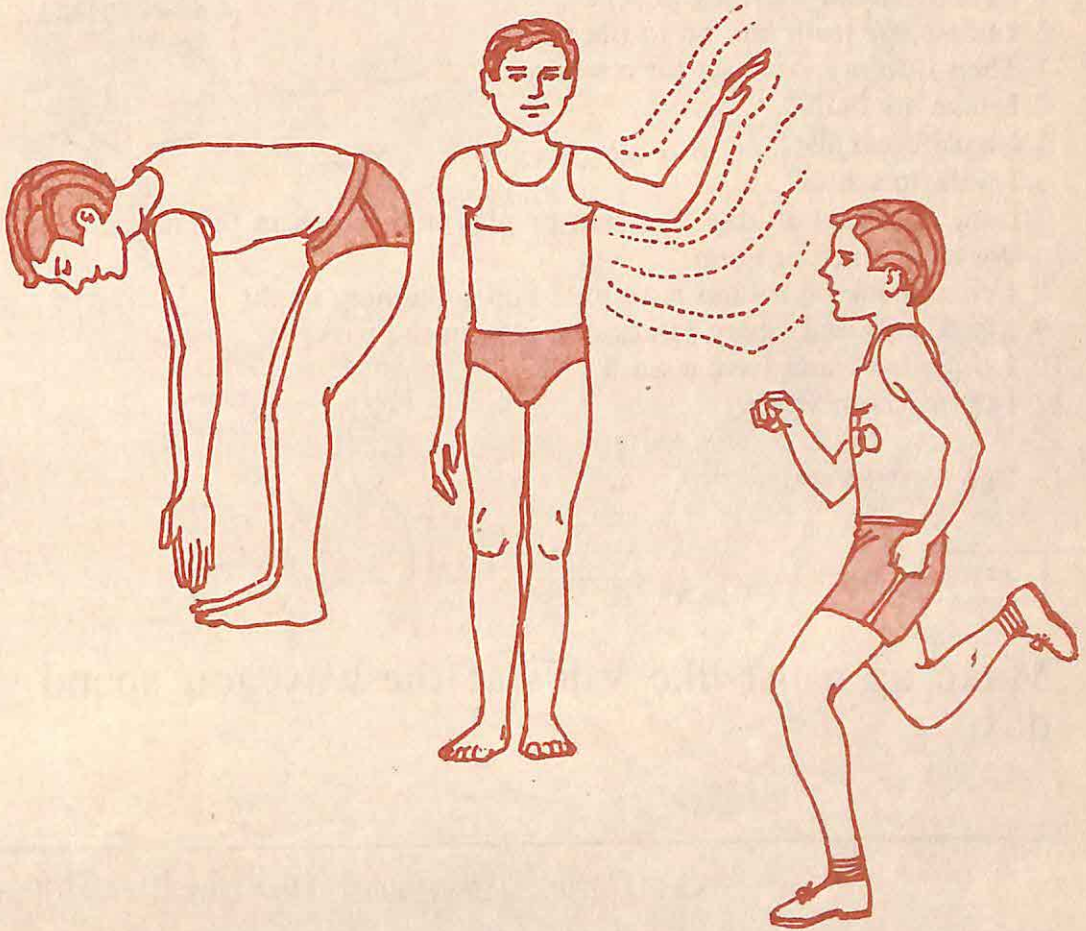
coffee grinder ()

TALK
ABOUT

- 1 What kind of stove do you use at home?
Can you manage without a stove?
- 2 How is a pressure-cooker useful?
- 3 What is a refrigerator used for? Can we do without one?
- 4 Could you manage to cook and eat without a spoon?

KEEPING FIT

Every morning Anil does his exercises.
Here are some of the exercises he does.



Play is also an exercise.

We run.

We skip.

We swing on bars.

We play football, cricket, badminton.

Exercise keeps our bodies fit.

Viji is seven years old.

She goes to school every day except Sunday.

This is what she does through the day:

- 1 I get up in the morning at seven.
- 2 I brush my teeth and go to the toilet.
- 3 Then I do my exercises for a while.
- 4 I have my bath.
- 5 I have breakfast.
- 6 I walk to school.
- 7 I am in school all day. We skip or play hop-sotch in the recess.
We have lunch at noon.
- 8 I come back home and have milk and something to eat.
- 9 My friends and I play games. We play in the park.
- 10 I come back and have a wash.
- 11 I do my homework.
- 12 We have dinner.
- 13 I go to sleep early.



Make up a list like Viji's of the way you spend your day.

ON THE ROAD



Poor Ravi! He will be careful the next time.



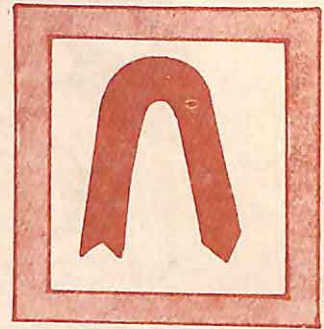
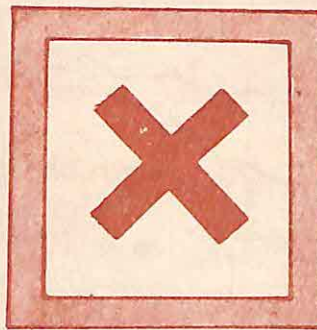
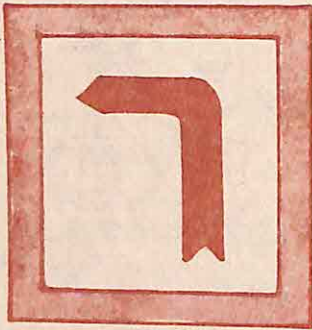
When you are on a road, there are some rules you must follow. Talk about them.

- 1 Walk only on the pavement. If there isn't a pavement, walk as far to the side of the road as you can.
- 2 Before you cross the road, look right, look left and look right again. Cross only when it is quite clear. On main roads there are pedestrian crossings. Use only these.
- 3 Never play on the road.
- 4 Never cross in front of or behind a bus that has stopped. Why?

ROAD SIGNS

Do you know these signs?

People who drive vehicles should know them.

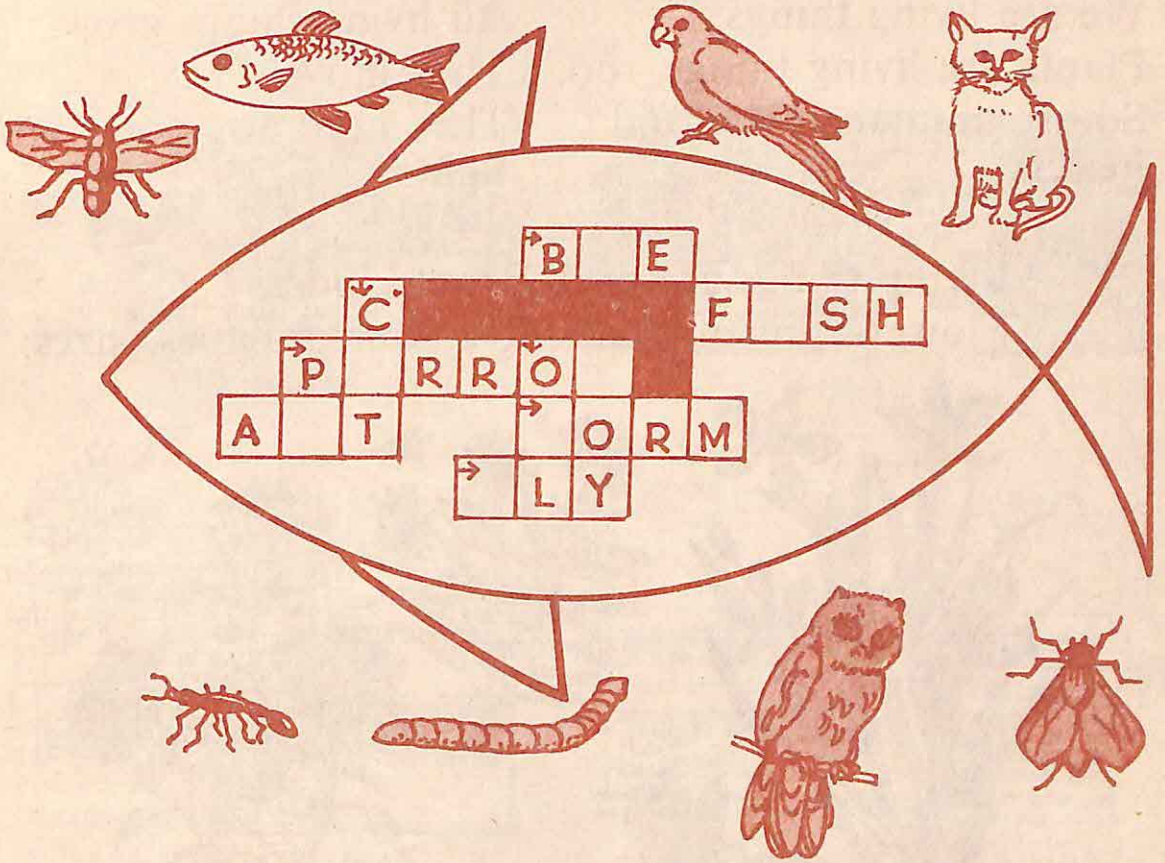


Find out and draw
other signs.
Say what they stand for.

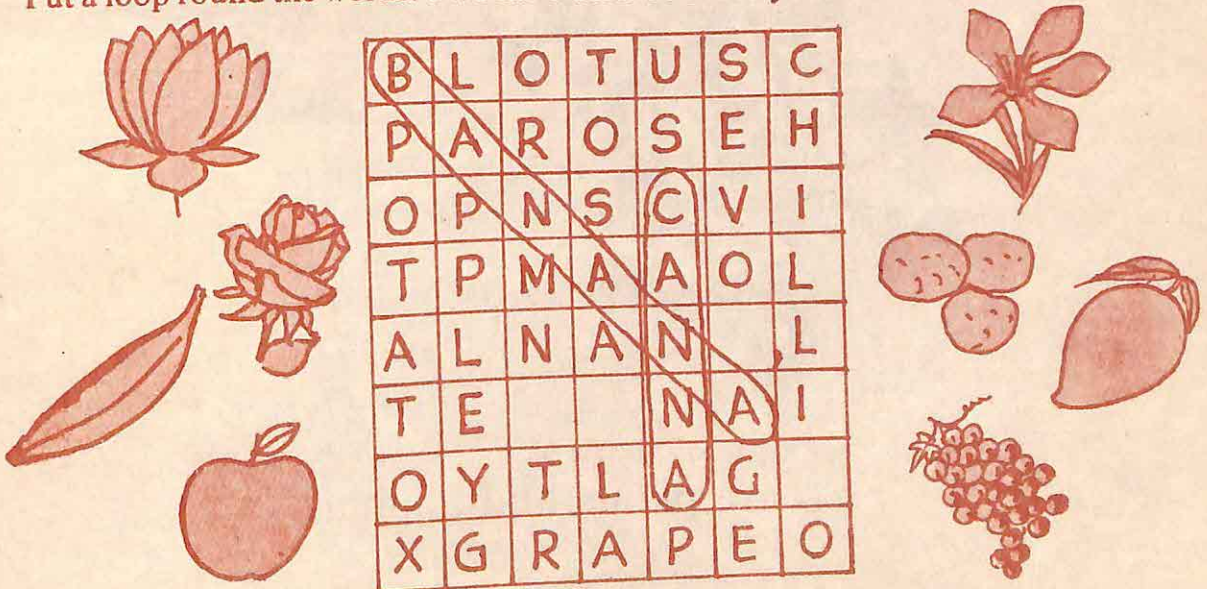


- 1 Why do many roads have a white line along the middle?
- 2 Which side of the road do we drive on?
- 3 If a motorist sees a yellow line down the middle of a road, what must he not do?
- 4 What must we do when the traffic lights turn amber?

CROSSWORD FUN



Can you find the words for these fruits, flowers and vegetables in this puzzle?
Put a loop round the words. Two have been done for you.



SHAPES AND SIZES

We are living things.

Plants are living things, too.

So are animals, birds and insects.

All living things grow.

They move.

They need air, water and light.

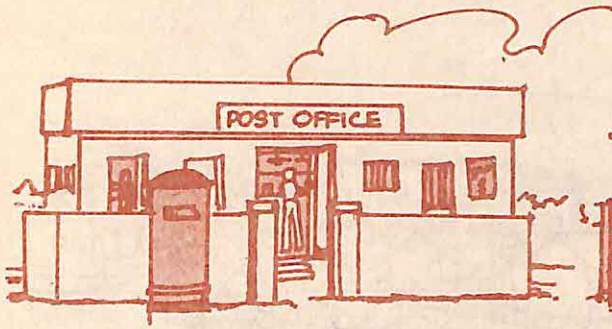
Living things are of different kinds.

Flowers are of different colours, shapes, sizes.



So are plants and animals.

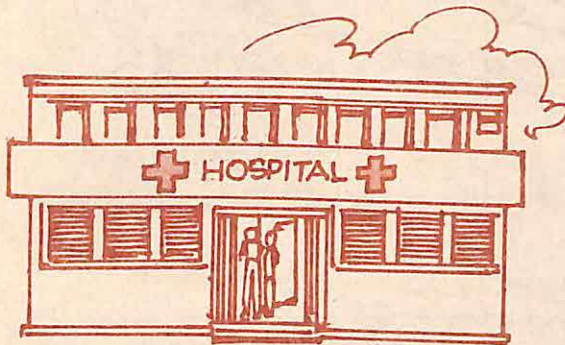
HELP AT HAND



a post-office



a police-station



a hospital



a bank

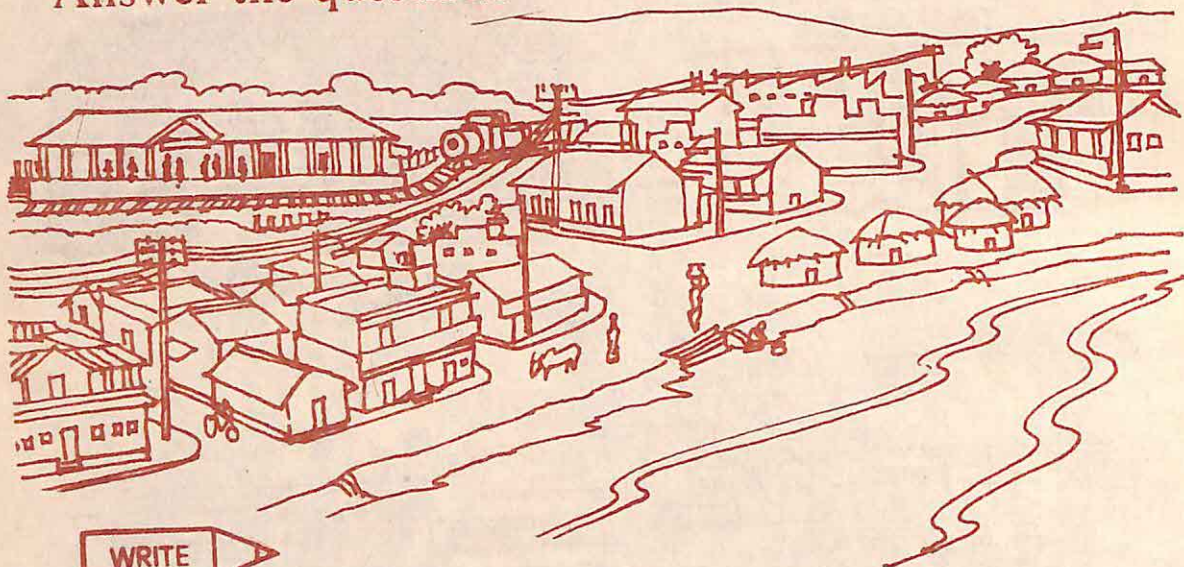
TALK
ABOUT

Where would you go

- 1 if you broke your hand?
- 2 if you needed to take out some of your money?
- 3 if your cycle knocked against another on the road?
- 4 if you wanted to buy stamps?
- 5 if you are caught riding your cycle at night without a lamp?
- 6 if you wanted to send your friend a telegram?
- 7 if you have to have an operation?
- 8 if you wanted to put a hundred rupees in a safe place?

LOOKING AT TOWNS

Look at this picture.
Answer the questions



WRITE

1 Does the town have electricity?

2 Where does the town get its water from?

3 Is the town full of buildings or does it have lots of trees?

4 How many houses with tiled roofs can you see?

5 Does the town have a railway station?

6 Are the streets narrow or wide?

7 How many kinds of houses can you see in the picture?

WATER, WOOD, AIR

Water is a liquid.
We can pour it.



All these are liquids.



milk



honey



tea

Wood is solid.
It is hard.
We can change its shape
only by cutting it.



The air around us is made up of gases.
We cannot see them but we can feel them.

The world is made up of things that are
liquid or solid or in gas form.
Or in between these:



Put these in the right columns:

milk

bread

leaf

smoke

tea

lemon- juice

cloth

pencil

steam

liquid

solid

gas

WASHING THINGS

Here is Maya washing a cotton shirt.
You too can wash one.

1. Take a basin of hot water.



1.

2. Mix two large spoons of detergent powder in it.

Beat and stir the water till it is foamy.



2.

3. Put the shirt in and leave it for a while.



3.

4. Rub the dirty parts carefully in water.



4.

5. Squeeze out the soap from the shirt.



5.

6. Dip it in a bucket of cold water.



6.

7. Take out the shirt and wring it.



7.

8. Spread it on a rope or wire to dry.

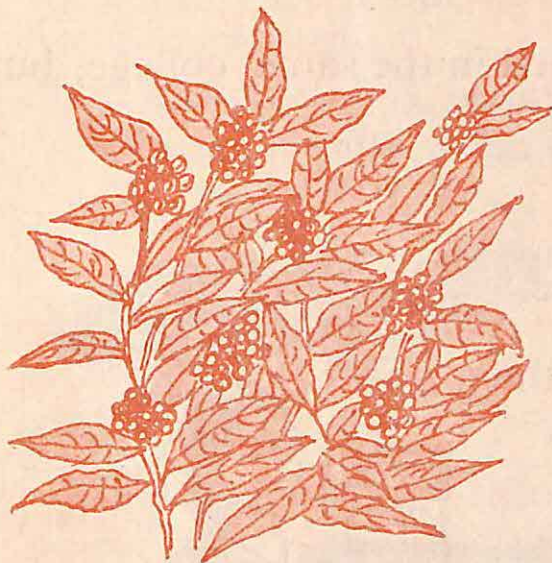


8.

USING PLANTS

Plants are very useful to us.

They give us fruits, vegetables and grain.



Coffee seeds and tea-leaves come from plants.

We can make many things from plants. Cotton comes from the cotton plant. We use it to make thread, cloth and rope.



People make baskets and mats from leaves and reeds.

WHAT WILL I BE?

Gopal, Sita, Rohit and Kamala went to the same school. They were in the same class.

Many years later, they studied in the same college, but they took different subjects.

Rohit studied Geography.

Kamala studied English.

Gopal and Sita took Science.

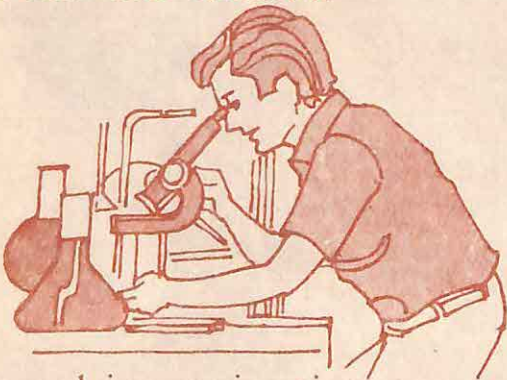
Look at them now.



Rohit teaches
in his old school.



Kamala works at home.



Gopal is a scientist
in a firm which makes
medicine tablets.



Sita is a doctor.

AIR

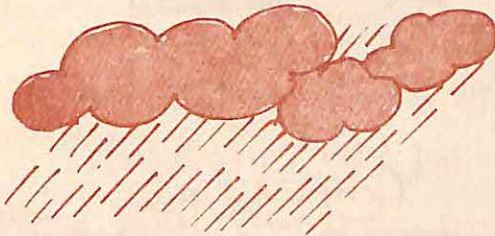
Air is all around us.

We cannot see it but we can feel it.

Air has moisture.

That means it has water in the form of gas.

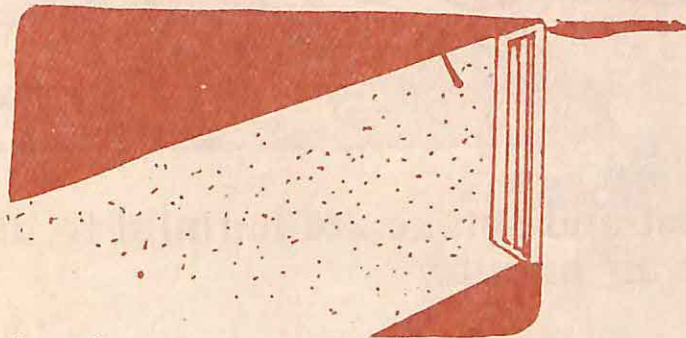
We can see it only when it becomes water again.



like in rain



or like the dew on plants

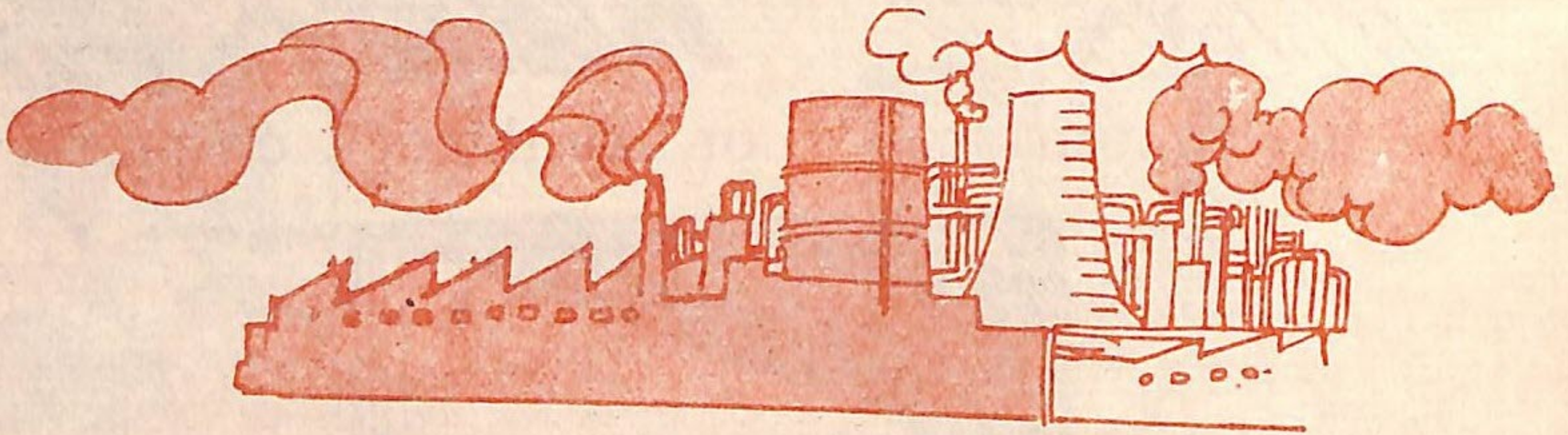
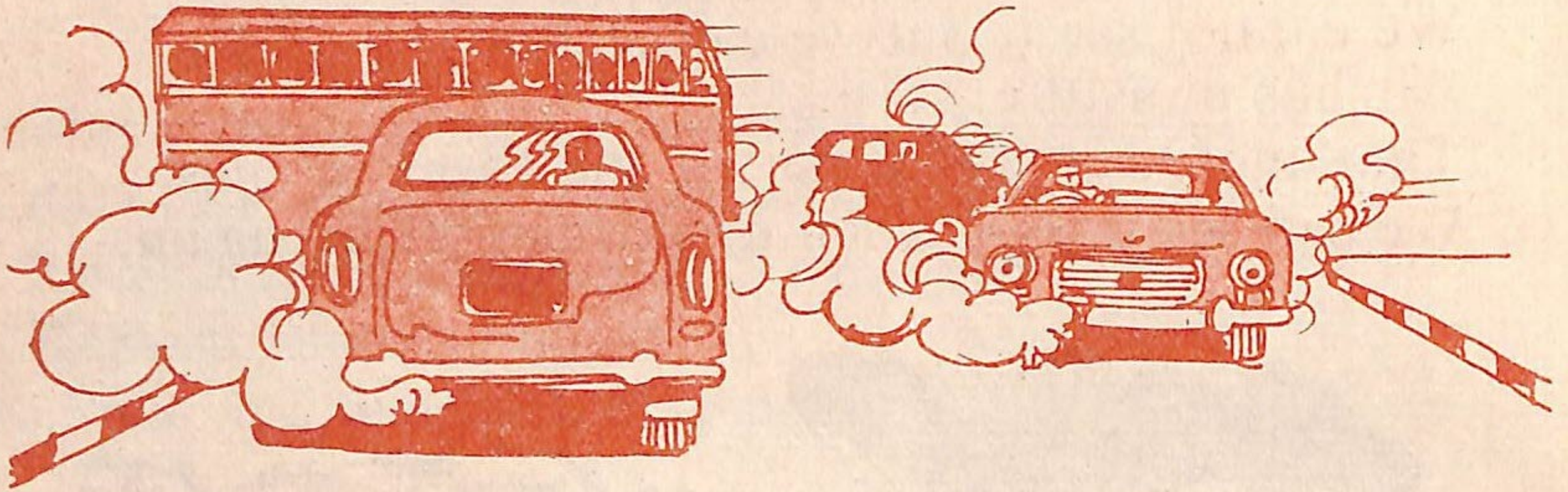


Air has dust.

You can see the fine dust in the sunlight.

Air fills up all spaces.

DUST AND SMOKE



Dust and smoke are harmful to us. They make the air impure.



They spread germs and cause disease.

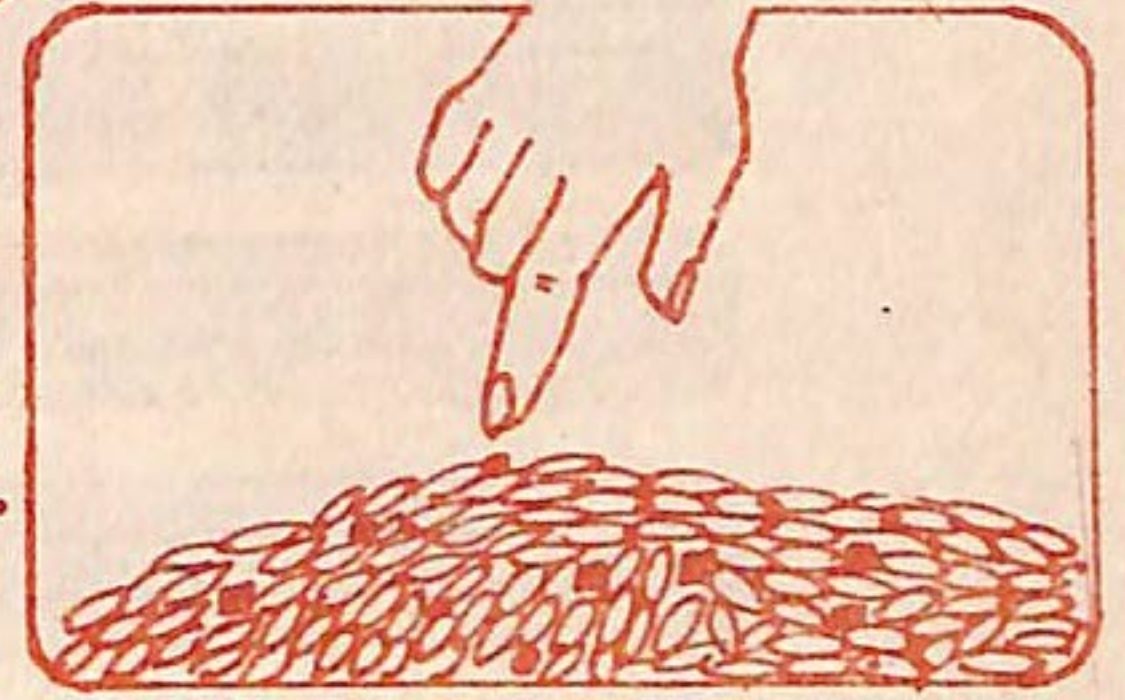
BUYING WITH CARE

We buy a lot of food from the market.

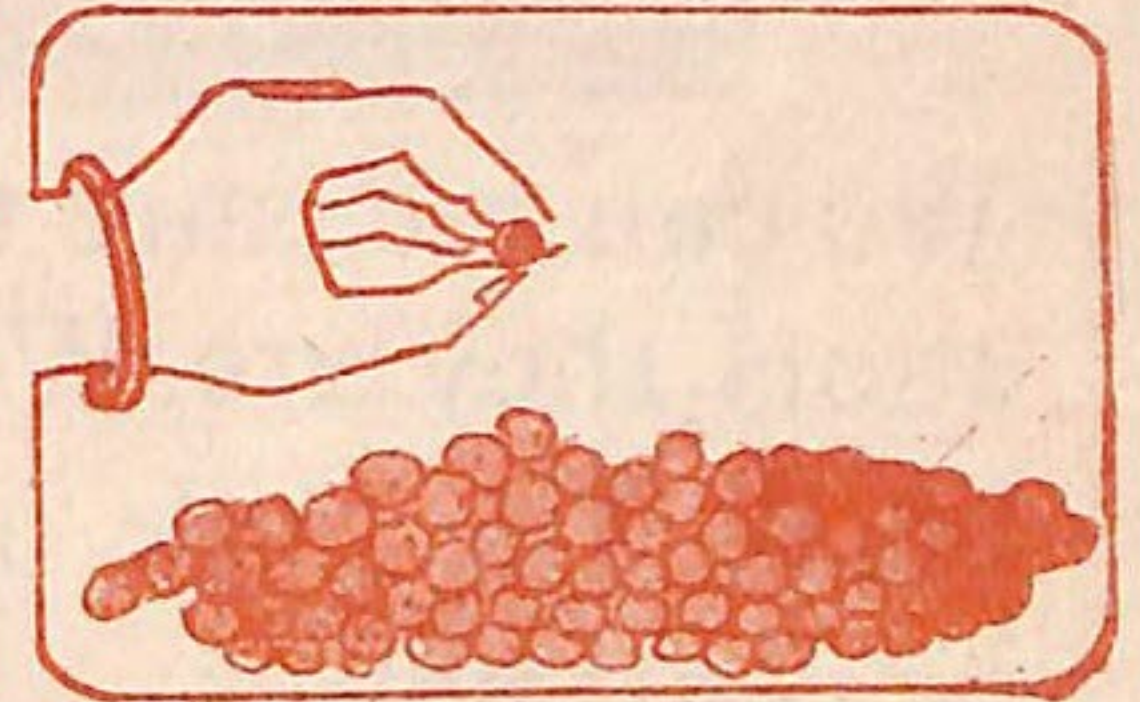
Look what Mrs Das says:



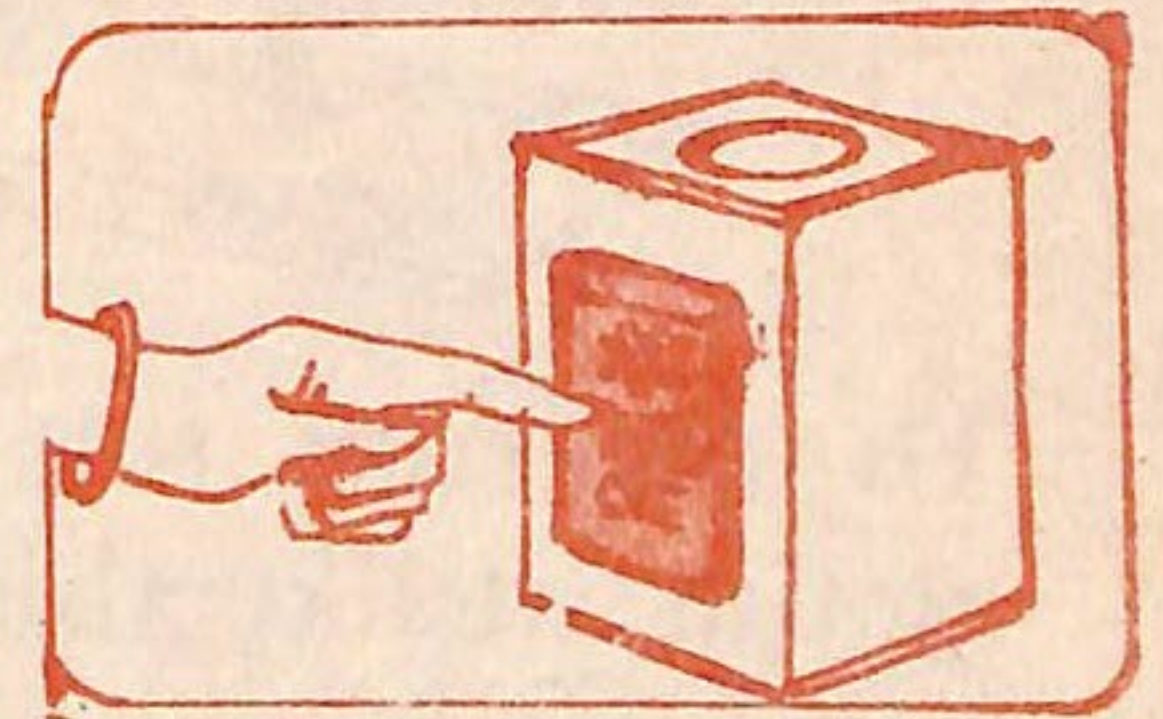
See the stones in this rice.
Make sure you pick them out.



Are you sure all these are
peppercorns? Look, I found
two black beads in them!



I always buy oil in tins.
The tins must have a
proper label.



Don't drink the water in this
glass. Can you see things
floating in it? Boil it and
strain it.

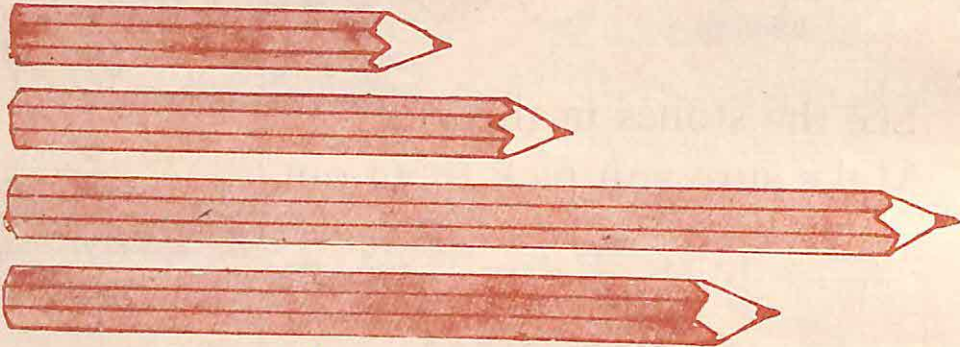


MEASURING THINGS

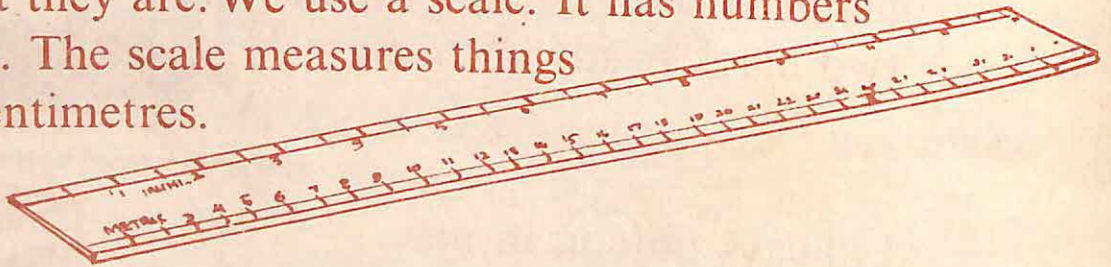
1 Which line is longer?



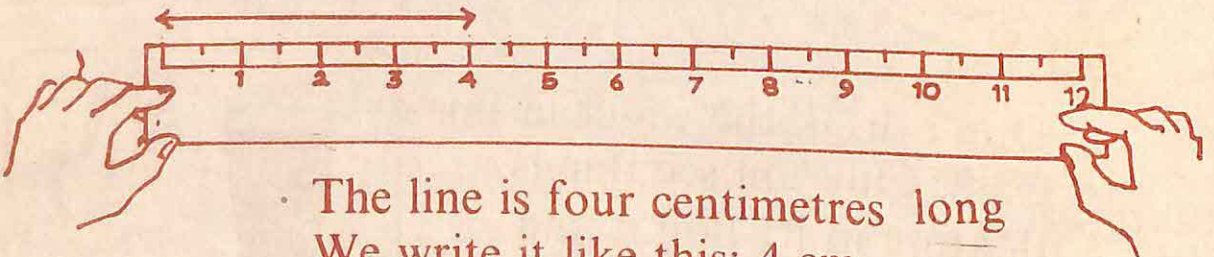
2 Which is the shortest pencil?



We can measure things to see how long or short they are. We use a scale. It has numbers on it. The scale measures things in centimetres.

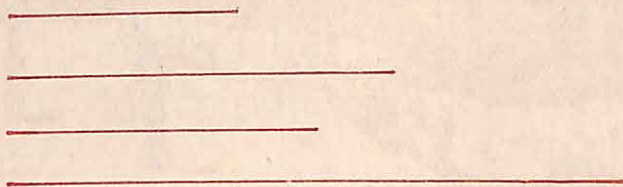


To measure this line we hold the scale against it like this.



The line is four centimetres long
We write it like this: 4 cm.

Measure these lines.



Measure things in your class-room.

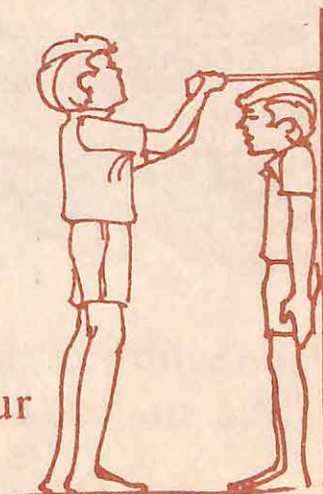
How will you measure these?



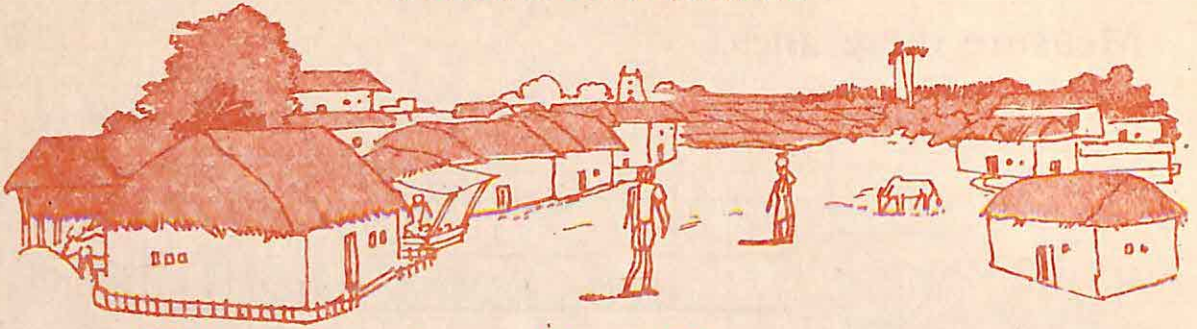
Your teacher will help you.



Ask your friend to stand against a wall in your classroom. Measure his height with a ruler or measure tape. Then ask him to measure your height.

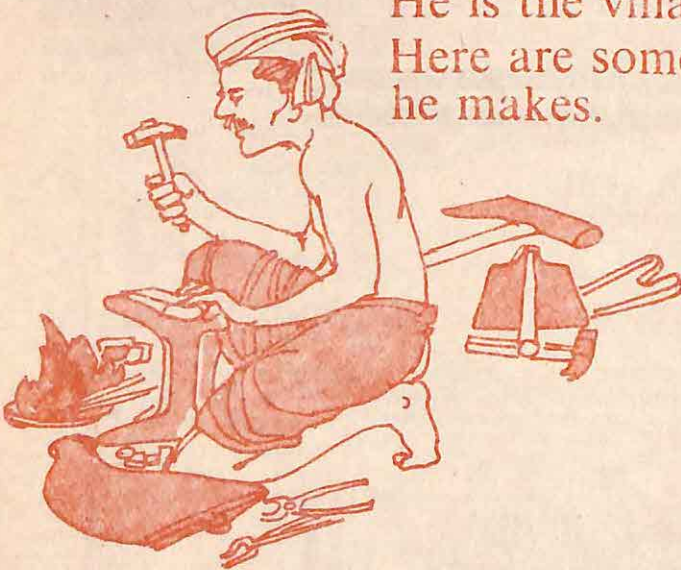


WORKING AT HOME



This is Bansipur village. There are two hundred people in this village. men, women and children. Most of the men are farmers. But many do other work to earn their living.

This is Ramlal.
He makes tools with iron.
He is the village blacksmith.
Here are some of the things he makes.



Lakshmi makes agarbattis.
She makes many hundreds of them in a day.

Kishen is a potter.
He makes pots for cooking, and
flower-pots. He sells flower-pots
like these in the city.



Devi and Hari make
matchboxes. They stick
labels on the boxes.
They count and fill
matches in the boxes.

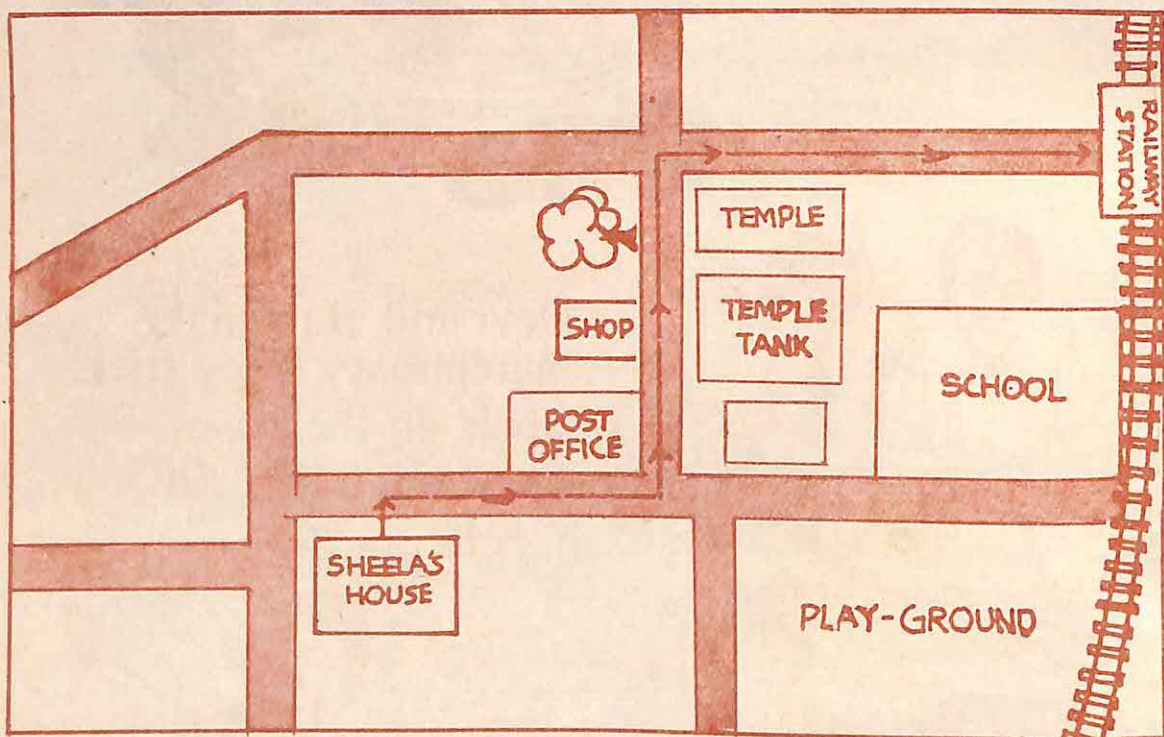
Sita makes khadi cloth.
She first spins the
thread out on the
charkha. Then she makes
the cloth on a hand-loom.



DRAWING A PLAN

Sheela wants to know the way to the railway station from her house.

Let's draw a plan of her neighbourhood.



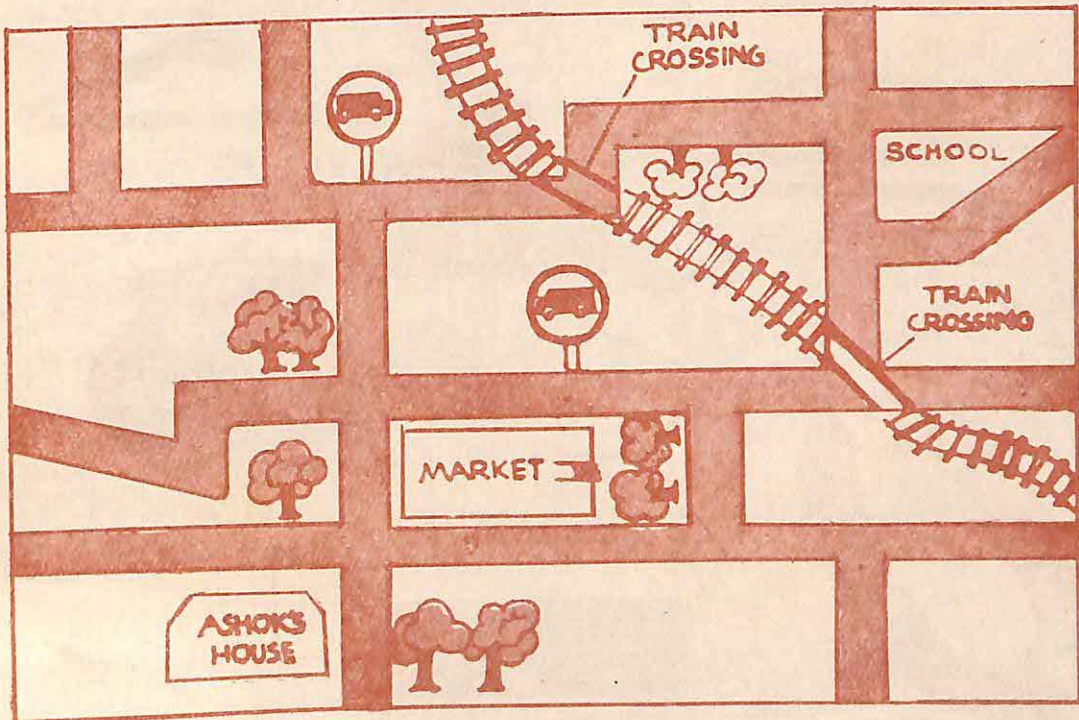
Now, let's give her directions.

- 1 When you come out of your house, turn right.
- 2 Walk down. You will see the post office on the left.
- 3 Now turn left after the post-office.
- 4 Walk down till you see a tree on your left and a temple on your right.
Now turn right.
- 5 If you walk to the end of the road you will come to the railway station.

Now look at the plan on page 76 again.
Is there any other way Sheela can get to the station?
First trace out the way on the plan.
Then tell her how to go, step by step.

Your teacher will help you.

Look at this plan.



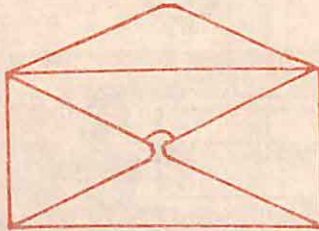
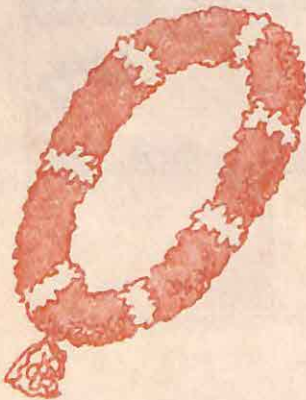
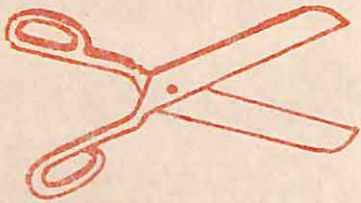
- 1 Are there many trees in the neighbourhood?
- 2 Is the market near Ashok's house or fairly far away?
- 3 Is there only one bus-stop?
- 4 Ashok goes by bus to school. Why is he sometimes late?
- 5 How many cross-roads are there?



Draw a map of your neighbourhood.

FACTORIES

Which of these do we make in factories and workshops?



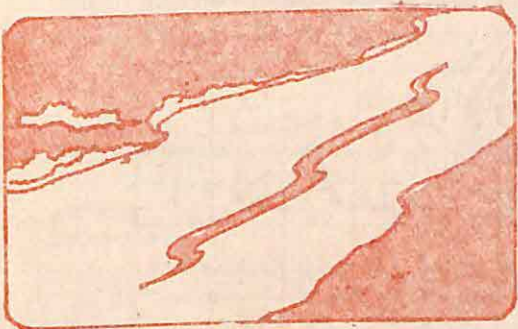
CHANGING THINGS



A hill.



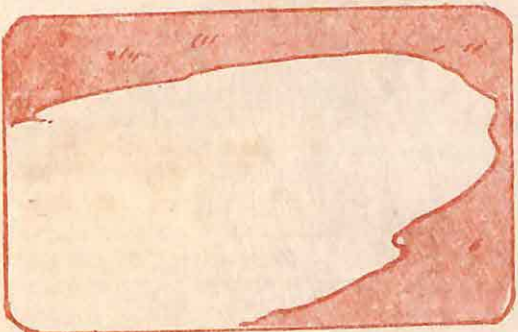
A railway line cuts through the hill.



A river.



A bridge over the river.



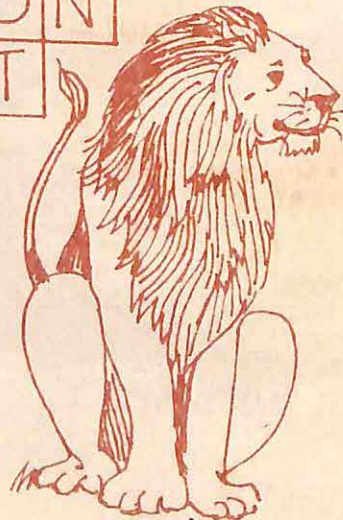
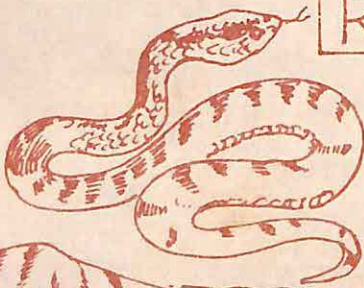
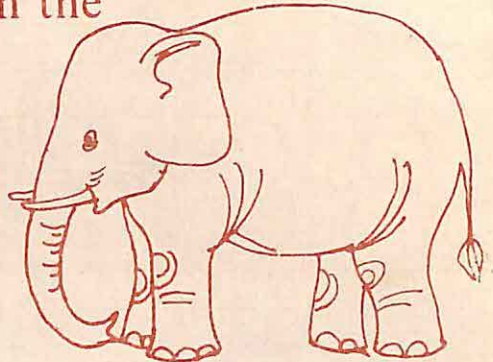
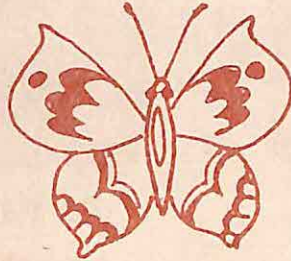
An open space.



Buildings in the open space.

ANIMAL CROSSWORD

Solve the crossword puzzle with the help of the pictures around it.



Lesson Notes for Teachers

The notes on these pages refer to each page of the text and are intended to be guidelines for the teacher. They offer suggestions on how to organise the lesson and how to help children acquire (through discussion, written exercises, observation and exploratory activity) a sensitive understanding of the concept.

The guidelines are offered with the recognition that there is more than one good way of teaching something and with the hope that teachers will if necessary modify, adapt, extend or change methods to suit the situation in which they teach.

The numbers in boldface type refer to page numbers and the title is the title of the lesson. The concept/topic is explained briefly under each lesson-head. The link-pages appearing in brackets after the lesson-heads indicate lessons which are topically or conceptually linked to other lessons in the book. This is provided for teachers who would prefer teaching topic-clusters to following the order in the book.

1 Untitled (Link pages: 2, 3)

Concept: What each member of the family does. The page talks about two families—Velu the vegetable-seller's and Nandan the office-goer's.

No economic comparisons are intended (or should be offered). Talk first about the page itself, asking questions to check comprehension: Who is Velu? What does Nandan's wife do? Then lead to a more personal discussion with the children: Where do your people work? Does anyone stay at home? What do the people at home do?

2-3 Helping (Link page: 4)

Concept: Inter-action between family members and cooperation.

Lead on from the discussion on page 1. Talk about Velu's family and how they help each other and similarly about Nandan's family. Go on again to a personal discussion addressing questions to each child: How do you help in the house? How does your mother help you/your father? How does your father help you/your mother? etc. Do not comment on the questions, make this an opportunity to encourage free expression of ideas.

4 Sweet and Sour

Concept: Varieties of tastes.

Read lesson through, providing regional-language translations of the words for different

tastes, if necessary, so that the concept is clear. The exercise can be written or oral. Ask children for other foods to fit into each taste category. Talk about favourite foods, then about how in cooking we combine many tastes.

5 Groups

Concept: Animal groups on the basis of like features.

The text is self-explanatory. Introduce the concept of similarity by drawing (or getting large pictures of) two similar animals, say, a horse and a donkey. The class looks at the pictures, observes and talks about features that make them look similar. Come to the text. Let children first identify the animals. Write down the groups as the children call them out, making no comments at this stage. Then go back and discuss the animals in each group—talk about differences also.

6 Food

Concept: Distinguishing between liquids, solids, vegetables, fruits and cereals.

The lesson is self-explanatory. The exercise can be a written one. Discuss what the children eat at lunch-time, then as items are named ask class to fit it into each of the five categories.

7 Air, Water and Light

Concept: Air, water and light as the basic needs of living things.

Carry out the experiment with soil which is somewhat dry as otherwise it will be several days before children see the desired effect. Create as much interest and participation as possible. Use a polyethylene bag to cut off air. Discuss how we need air, (breathing, the weather, drying things etc.), light (to see things, for warmth, etc.) and water (drinking, washing, cleaning etc.). Talk about a world without light and water—air is the most difficult of the three to understand the need for. Ask each child to write 3-4 lines on this subject.

8 The Weather

Concept: Weather

This lesson provides opportunities for plenty of drawing and painting activity. Get children to talk about their pictures, leading to what we do in different kinds of weather. Organise picture collection for a weather-poster. We associate certain foods with certain seasons—children will enjoy talking about this from their point of view.

9 All Kinds of Plants

Concept: Simple categories of plants.

Children, if they have used Book 1, are already familiar with these categories and the lesson revises the concept. Talk about plants familiar to children under each category. Get the class to make a plant-group poster.

10 A Home for Animals

Concept: Domestic animals.

The text is self-explanatory. Ask children to think about why some animals cannot live with us. Discuss each child's suggestions with the rest of the class. Bring in an appreciation of habitat, food-habits, size, group living etc.

11-12 Living in a House

Concept: Why we live in houses.

The lesson on this concept in Book 1 discusses only the advantage of living in houses. These two pages encourage a more liberal look at the same idea—the fact that outdoor living also has pleasures and advantages, but is inconvenient for various reasons. Let the children look at the pictures. Ask two or three children to relate the story—help with questions if necessary: What happened to their clothes? Who ate their food?

Discuss the story and the things Raghu and Anil enjoyed. Let the children write or talk about what they would enjoy, or not enjoy.

The class project suggested (the tray model) should create a further interest in the problem of shelter.

13 Living and Moving

Concept: Land, water and amphibian animals.

The best way to create interest here would be a visit to the local aquarium (if there is one) or to a river or pond where fish can be observed in their natural habitat. Alternatively, fish swimming in a bowl of water. Reinforce ideas in lesson with pictures.

14 Talking about Things

The questions on this page can be answered orally or written down. They are a combination of questions about various aspects of the child's environment and examine his knowledge and awareness of them. Deal with questions 1, 2, 4 and 8 in detail. Correct mistaken ideas. For question 8 a charade can be played out to help children understand all that happens in a buying or selling activity.

15-16 Eating and Drinking

Concept: Food and nutrition, the need for food.

Introduce lesson with questions, making sure none of them cause embarrassment: How many times do you eat in a day? How many meals do you have? Do you eat everything you are served? Let children read text, explain the pictures. Talk about timings. Do not comment on any of these, but emphasise the importance of eating all that is available, and of eating at the right time. The exercise is a written one.

17 Buying Things

Concept: Buying food.

This lesson draws attention to certain principles we are aware of when we buy food—is it fresh, is it clean, is it cheap or expensive, have I a basket or bag to take it in, will it keep or must it be eaten immediately?

Introduce lesson by asking children where they buy vegetables from. Talk about the above-mentioned points, ask children to write down answers. Trace the process of buying, cleaning and cutting a vegetable before it is cooked. If possible, let children examine and comment on vegetables in various states of freshness.

18 Many Ways to Cook

Concept: There are many ways of cooking food.

The text is self-explanatory. Put up a list of familiar food-items on the blackboard. Read each item out. Ask children to describe and then write down the cooking process. Help with information—the exercise is not to test factual knowledge but to help children appreciate the different methods of cooking. They must learn the words, though—boil, roast, fry, steam, bake.

19-21 Legs

Concept: Animals and legs.

The text is self-explanatory. Organise a classroom chart of pictures from magazines. Have two-legs, four-legs, six-legs, many-legs and no-legs columns.

22 Cooking Rice

Concept: Cooking as a process involving a chain of activities.

This lesson aims at an appreciation of how several activities precede the placing of a cooked dish on the table. The exercise can be an oral or written one, and shows one of several methods of cooking rice. Create interest by asking children to find out and talk about how other simple-process dishes are made—dal, chapatis etc.

23 Putting Things Away

Concept: Storage of food.

Draw different kinds of containers—tins, bottles, baskets etc. Talk about how some food-stuffs are stored to keep them free of dust, moisture and insect pests. Teach the distinction between storage-foods and non-storeable foods, i.e. perishables which cannot be put away in closed containers. Talk about ways of keeping perishables in a fresh and edible condition.

24 Looking Alike

Concept: Family resemblances.

Introduce the concept of resemblance—a large photograph of a family where resemblances between parents and children are clear, would be a great help. Point out features—hair, shape of face, colour of eyes, physical peculiarities, e.g. large eyes, thin lips, long neck etc. Get children to talk about how they resemble their parents and relatives.

25 How do we Eat these?

Concept: Eating things raw, eating things cooked.

This concept is simple to teach. Introduce concept by talking about how the first men had to eat everything raw until they learnt about fire and its uses. The text is self-explanatory. Add more examples if necessary but do not overwork the concept.

26 Republic Day

Concept: Public festivals.

The text is self-explanatory. Organise a drawing session on a parade, then get children to talk about their drawings.

27 Our Pets

Topic: Caring for animal pets.

The text is self-explanatory. The idea of the open-ended questions at the end is to encourage children to think of commonsense answers based on observation and reasoning. 'No' and 'Yes' are not adequate as answers, insist on details.

28 The Old Church (Link pages: 39, 79)

Concept: Change over a period of time.

This lesson discusses how places and things change in time—they age, new things take the place of old.

Read the lesson out as a story and let the children enjoy it as such. Talk about old and new buildings in the city, developing areas.

29-30 Building Houses

Topic: Building materials.

This lesson discusses building materials and how they are used. Children would appreciate this best if they are taken to house-building sites and have the opportunity of observing activity and of examining materials—sard, cement, bricks, wood etc. Play a building game: each child thinks of one building material item, these are listed on the board. The class then talks about what each is used for. Do not reject improbable suggestions outright. Discuss them with the class.

Page 30 discusses the idea of division of labour.

31-33 Animals and their Homes

Concept: Animal shelters.

The text is self-explanatory. To create further interest, collect and show the class pictures of various animals, discussing houses and habitat. Lead children to the idea that the larger animals do not normally build shelters, they depend on

nature for it. Page 32 discusses animals in our houses, some of them unwelcome pests. Do not prejudice the child by distinguishing between 'wanted' and 'unwanted' animals. Talk about where they are found, colour, habits etc., first before coming on to question 3.

34-35 The Clothes we Wear

Concept: Materials for clothing.

The text is self-explanatory. Organise a cloth-bits collection, paste these on boards, get the children to identify materials. Get children to collect pictures (or consult an encyclopaedia) of cloth-making processes. The important thing is for children to understand that (1) the raw fibres are natural or synthetic and (2) that the process is fibre to thread and thread to weaving.

36-37 Making a Plan (Link pages: 76, 77)

Concept: Understanding and making ground plans.

This lesson has a straight, practical purpose—to teach children how to make and interpret plans. The initial idea of a 'ground plan' must be introduced and explained first. Next, explain the importance of deciding what is needed before making the plan—in the lesson Mr Shah tells Mr Krishnan exactly what he wants. We plan our houses according to our needs and conveniences. As a supplementary exercise, get children to make a plan of the class-room, of their houses, of the school etc. Get them to mark doors and windows. Discuss the plans by drawing up some on the board.

38 The Hare and the Tortoise

This must be treated as an exercise in picture interpretation. Talk about the story—the personalities of the hare and the tortoise, how the race was really an unequal one to start with and was won in certain circumstances. Treat the story also as a ground for training children to think carefully about the facts of a thing and examining all its aspects.

39 Then and Now (Link pages: 28, 79)

Concept: Time brings about change.

The text and exercises are self-explanatory. If possible, obtain pictures of places taken twenty-five years apart, especially pictures where changes are striking. Talk about how change is the result not only of time in itself, but of ideas and circumstances—modernity, expansion, development, shortage of space etc.

40 Leaves (Link page: 60)

Concept: Leaves have different shapes.

A lesson designed for appreciation and enjoyment of shapes of things. Let children examine leaves, draw them, make rubbings. Discuss the role leaves play in providing shade.

41 Good Habits to Learn (Link page: 49)

Topic: Developing a consciousness of hygiene and of helping.

Discuss each picture in detail with the class. Discuss other good habits—courtesy, table manners, attitudes of help and concern.

42-43 Caring for Things Around Us

Concept: Hygiene and civic sense.

Give children plenty of time to observe the picture before they answer the questions. On the basis of the questions discuss each instance of violation of civic duties, lack of consideration for others' safety, and of noise pollution (the man with the radio). Discuss other common problems that children encounter every day, leading them to an appreciation of their own roles in controlling these problems.

44 Festivals (Link page: 26)

Topic: Celebrating happy events.

Talk about various local festivals and how they are celebrated—get children to narrate their experiences. Organise a drawing session for designs, paper decorations etc.

45 Milk and the Coconut Tree (Link page: 67)

Topic: Products from milk and the coconut tree.

The text is self-explanatory. If possible, organise a trip to a craft centre where children can observe things being made from natural materials. This lesson must lead to an appreciation of how man uses natural materials to meet essential needs and to craft goods. Talk about materials such as wood, leaves, the rubber-tree etc.

46-47 Things we Use (Link page: 54)

Concept: Utility tools and instruments.

This lesson is intended to be an observation exercise for tools we normally take for granted in everyday living. Organise lessons as suggested in text. Let children talk about how each tool is used. The last question (Do you really need it?) should be the most interesting

of all—do not prompt answers here, persuade independent thought. (What could you use instead?)

48 Talking to One Another

Concept: Language as a means of communication.

Discuss the different languages the children speak at home. There will be lively interest in the class if they learn words from a new language. Talk about other means of person to person communication—sign language, letters, telegrams, the telephone etc.

49 Living with People (Link page: 41)

Concept: Community living.

Create an extended interest in this lesson by thinking of other problem instances in community living, ask children how they would solve them.

50-51 Finding out about Towns (Link page: 62)

Concept: Features of towns and landscapes.

The basic point of this lesson is to teach not only features of towns but also the understanding of the spatial relationship between one object and another—for instance, how far the hills are from the road in the foreground, where the road leads, why the road is steep etc. Discuss other pictures also—calendars provide many landscape pictures.

52 People at Work

Topic: Professions and working.

Discuss and list up other examples of people who work in offices, on the street, in factories and in the fields. Get children to think about working conditions in each case, what kind of facilities are provided and the common problems—weather, noise, locational problems etc.

53 Using Water

Concept: Water conservation.

Plan the discussion under the following heads:

1. Where does the town get its water from? 2. How is it brought to the city? 3. How is it used? 4. What are the different ways in which it is wasted? 5. How can we help conserve water?

54 Things we Use (Link pages: 46, 47)

Concept: Essential and non-essential articles.

The text is self-explanatory. Lead up to an

honest discussion of which items are dispensable and which are not.

55-56 Keeping Fit

Concept: Exercise for health and the daily routine.

Make this more or less an activity lesson after an introductory discussion on ways to keep fit and healthy. Have a group-exercise session where children 'discover' the variety of movements of which the body is capable. Lead on to this with questions like 'How far can you turn your neck? How far can you bend your back each way? Can you turn and look back without moving your legs?'

57-58 On the Road

Topic: Road safety and rules.

One of the best ways to approach this topic would be to ask children to think of and describe as many rules as they know. List these on the board. Discuss each one in the context of why it was made and what purpose it serves.

Page 58 teaches some common traffic signs that children should know. Quiz them on other signs. Discuss the questions at the bottom of the page in detail.

59 Crossword Fun

A puzzle-crossword page for fun, with a simple recognition of well-known plants and animals as the background.

60 Shapes and Sizes

Concept: The diversity of size and shape in living things.

Organise this discussion by showing how plants and animals can be grouped according to similarities in size and shape.

61 Help at Hand

Topic: Community services.

Introduce (if Book 1 has not been studied) the subject of what community services are usually available in a city or town. Discuss the particular responsibilities of each service, also what the difficulties would be if it did not exist. Discuss other community services—the electricity and telephone departments, water supply etc.

62-63 Looking at Towns (Link pages: 50, 51)

Concept: The organisation of a town.

This lesson is intended to help children understand how the man-made features of a town are organised—buildings, water-supply, electricity, the railway system, roads etc. Collect 5-6 pictures of towns and use them as background material for discussions along similar lines.

64-65 Water, Wood, Air

Concept: Division of materials into solids, liquids and gases.

The texts are self-explanatory. Provide examples repeatedly until the distinctions are clearly understood.

66 Washing Things

Topic: Techniques of washing clothes.

Read out the stages slowly, ensuring that the purpose of each has been understood (e.g. why do we soak the clothes for a while?). Talk about the stages in washing other materials—nylon, silk, wool etc. The discussion must centre on purely practical points.

67 Using Plants (Link page: 45)

Concept: Products from plants.

Extend the subject of this lesson by making a list (on the blackboard) of other finished products. Encourage children to find out simple facts about processes of manufacture in each case.

68 What will I be?

Concept: The purpose of education.

This lesson is intended to help children understand why people go to schools and colleges i.e. study with a purpose. Bring in each aspect of education—study, sports, hobbies (music, dramatics etc.)—as an aspect of all-round education

69 Air

Concept: Air and its qualities.

Three qualities are discussed in this lesson: air has moisture, dust and it fills up all spaces. The first (moisture) and the last (air is everywhere) will be particularly difficult to understand because they are not visible phenomena. Explain how water everywhere dries up and passes off into the air as water vapour. Many teachers use the smoke from a lighted incense stick to demonstrate how air, like smoke, fills up all spaces.

70 Dust and Smoke

Concept: Air pollution.

Discuss the problems of air pollution, how and why they occur, how they can be prevented or minimised (e.g. situating factories in the suburbs, making sure that fuels are not adulterated and that engines are in good working condition).

71 Buying with Care

Topic: Adulteration of food.

Read out the text, talking about each 'problem' in detail. Let children narrate their personal experiences of adulteration. Lead them to talk about ways of preventing this or of safeguarding ourselves against this.

72-73 Measuring Things

Topic: Linear measurement of objects.

The texts and exercises are self-explanatory. Extend practice to measuring other objects in the classroom. If children experience difficulty with sub-units (millimetres etc.) confine them only to units: 'This line measures four centimetres and a little more.'

74-75 Working at Home

Topic: Home and village industries.

Extend discussion by listing other home-industry products. Get children to think about why home industries are convenient for the people concerned. Use the lesson also to talk about specialisation in trades: the blacksmith, the weaver etc.—and also about how children learn the trades from their fathers.

76-77 Drawing a Plan (Link page: 36-37)

Concept: Making and interpreting road maps.

This is one of the most important lessons in the book. Mapping skills can be developed early and quickly. Introduce the lesson by making a classroom map of the way to a familiar place from the school. Pose it as a problem (How will I go to—?) and prompt the children to direct you, drawing as they direct. Directional words can be taught: north, south, east, west, left and right, straight etc. Follow up lessons with 6-8 fresh exercises in both drawing as well as interpreting maps.

78 Factories

Topic: Factory-made and hand-made goods.

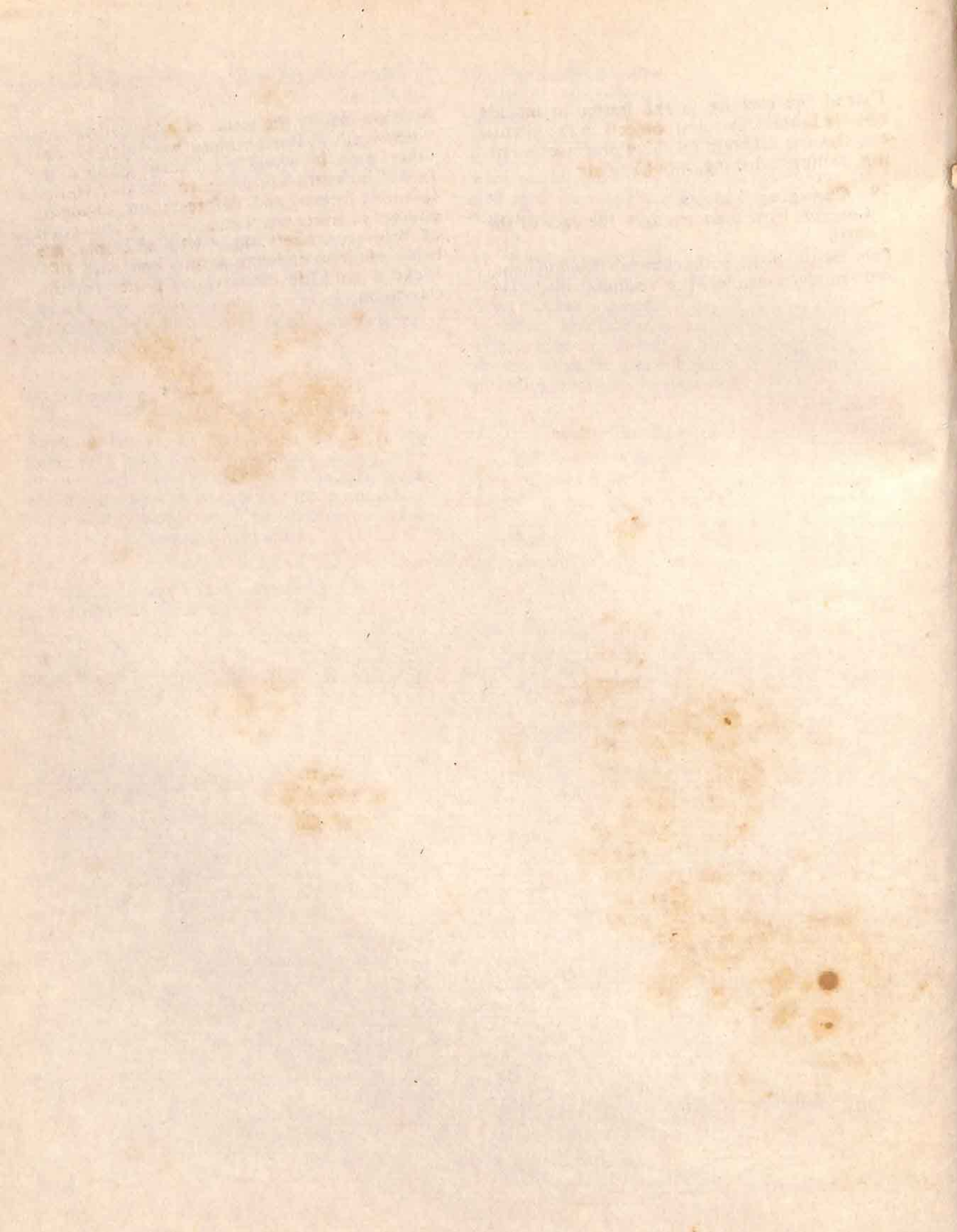
Extend the exercise in the lesson to include objects in the classroom, objects in the kitchen etc. Discuss different machine processes—cutting, rolling, crushing, moulding etc.

79 Changing Things

Concept: How man changes the face of the earth.

This lesson deals with change, development, and modernisation. The changes discussed

here are mainly the result of engineering activities—railway lines, bridges, buildings. Discuss other ways in which men have changed the face of the earth—farming, roads, afforestation (planting forests) and deforestation, changing courses of rivers etc. Lead on to a discussion of resource-conservation why attempts are being made to conserve nature and wild life. Make a wild-life conservation poster for the classroom.



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